S/M No. : TCN090BEF0

Service Manual
TV / DVD Combination

CHASSIS : CN-090
Model : DDQ-20L6SC

MODEL	DDQ-20L6
TV STANDARD	NTSC-M
POWER INPUT	AC 120V 60Hz
POWER CONSUMPTION	100W
TUNING RANGES	Frequency Synthesizer(FS) Tuning System TV VHF(L) : CH2-CH6 UHF(H) : CH7-CH13 UHF : CH14-CH69 CATV VHF(L) : 5A, A, B, A-5-A-1 CH2-CH6 VHF(H) : C-W+11 CH7-CH13 UHF : W+12-W+84
SOUND OUTPUT	3W + 3W
SPEAKER	8ohm 3W(NORNAL 3W, MAX 5W) x 2EA
ANTENNA INPUT IMPEDANCE	75ohm Unbalanced
AUXILIARY INPUT TERMINAL	REAR PART : S-VHS VIDEO, AUDIO(L,R) SIDE PART : VIDEO, AUDIO(L,R)
AUXILIARY OUTPUT TERMINAL	REAR PART : VIDEO, AUDIO(L,R) COAXIAL DIGITAL AUDIO SIDE PART : EARPHONE
INTERMEDIATE FREQUENCIES	PICTURE IF CARRIER FREQUENCY : 45.75MHz SOUND IF CARRIER FREQUENCY : 41.25MHz COLOR SUB-CARRIER FREQUENCY : 42.17MHz
REMOTE CONTROL	R-52A01
SPECIAL FUNCTION	1) 3-LANGUAGE 2) WITH CAPTION 3) CH LABEL 4) V-CHIP 5) DYNAMIC SOUND 6) SURROUND 7) WAKE-UP/OFF TIMER 8) SLEEP TIMER 9) POWER RESTORE 10) COAXIAL DIGITAL AUDIO OUT 11) EARPHONE

DAEWOO ELECTRONICE CO., LTD

http://svc.dwe.co.kr July. 2002

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1. SAFETY INSTRUCTION

PRODUCT SAFETY SERVICING GUIDELINES FOR COLOR TELEVISION RECEIVERS

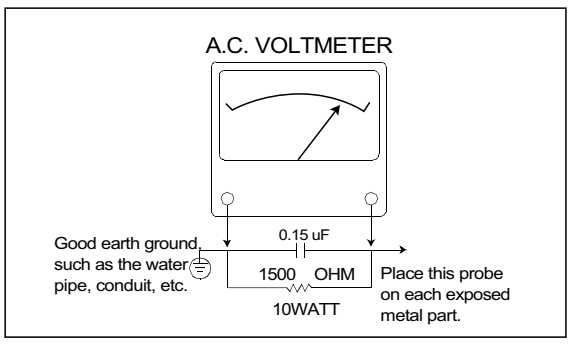
CAUTION : Do not attempt to modify this product in any way. Unauthorized modifications will not only void the warranty, but may lead to your being liable for any resulting property damage or user injury.
Service work should be performed only after you are thoroughly familiar with all of the following safety checks and servicing guidelines. To do otherwise, increases the risk of potential hazards and injury to the user.

SAFETY CHECKS

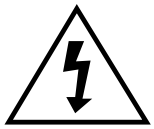
After the original service problem has been corrected, a check should be made of the following:

SUBJECT : FIRE & SHOCK HAZARD

1. Be sure that all components are positioned in such a way as to avoid possibility of adjacent component shorts. This is especially important on those chassis which are transported to and from the repair shop.
2. Never release a repair unless all protective devices such as insulators, barriers, covers, shields, strain reliefs, and other hardware have been reinstalled per original design.
3. Soldering must be inspected to discover possible cold solder joints,frayed leads, damaged insulation (including A.C. cord), solder splashes or sharp solder points. Be certain to remove all loose foreign particals.
4. Check for physical evidence of damage or deterioration to parts and components, and replace if necessary follow original layout, lead length and dress.
5. No leads or components should touch a receiving tube or a resistor rated at 1 watt or more. Lead tension around protruding metal surfaces must be avoided.
6. All critical components such as fuses, flameproof resistors, capacitors, etc. must be replaced with exact factory types. Do not use replacement components other than those specified or make unrecommended circuit modifications.
7. After re-assembly of the set always perform an A.C. leakage test on all exposed metallic parts of the cabinet, (the channel selector knob, antenna terminals, handle and screws) to be sure the set is safe to operate without danger of electrical shock. Do not use a line isolation transformer during this test. Use an A.C. Voltmeter, having 5000 ohms per volt or more sensitivity, in the following manner : connect a 1500 ohm 10 watt resistor, paralleled by a 15 mfd. 150V A.C. type capacitor between a known good earth ground (9water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the A.C. voltage across the combination of 1500 ohm resistor and 0.15 MFD capacitor. Reverse the A.C. plug and repeat A.C. voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.75 volts R.M.S. This corresponds to 0.5 milliamp A.C. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.

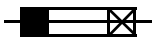

A.C. VOLTMETER
0.15 uF
Good earth ground such as the water pipe, conduit, etc.
1500 OHM
10WATT
Place this probe on each exposed metal part.

GRAPHIC SYMBOLS :



The lightning flash with arrowhead symbol,within an equilateral triangle, is intended to alert the service personnel to the presence of uninsulated “dangerous voltage” that may be of sufficienty magnitude to constitute a risk of electric shock.

The exclamation point within an equilateral triangle is intended to alert the service personnelto the presence of important safety informationin service literature.



Fuse symbol is printed on pcb adjacent to the fuse, with “RISK OF FIRE REPLACE FUSE AS MARKED”. The symbol is explained in the service manual with the following wording or equivalent.

“CAUTION : FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE (5A, 125V)” and **“ATTENTION:** AFIN D’ASSU UNE PROTECTION PERMANENTE CONTRE LES RISQUES D’INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET DE ”5A, 125V”.

SUBJECT : X-RADIATION

1. Be sure procedures and instructions to all service personnel cover the subject of X-rays in current T.V. receivers is the picture tube. However, this tube does not emit X-rays when the high voltage is at the factory specified level. The proper value is given in the applicable schematic. Operation at higher voltages may cause a failure of the picture tube or high voltage supply and, under certain circumstances, may produce radiation in excess of desirable levels.
2. Only factory specified C.R.T. anode connectors must be used. Degaussing shields also serve as X-ray shield in color sets. Always re-install them.
3. It is essential that the serviceman has available an accurate and reliable high voltage meter. The calibration of the meter should be checked perio - dically against a reference standard. Such as the one available at your distributor.
4. When the high voltage circuitry is operating properly there is no possibility of an X-radiation problem. Every time a color chassis is serviced, the brightness should be run up and down while monitoring the high voltage with a meter to be certain that the high voltage does not exceed the specified value and that it is regulating correctly. We suggest that you and your service organization review test procedures so that voltage regulation is always checked as a standard servicing procedure. And that the high voltage reading be recorded on each customer’s invoice.
5. When troubleshooting and making test measurements in a receiver with a problem of excessive high voltage, avoid being unnecessarily close to the picture tub eand the high voltage compartment.
   Do not operate the chassis longer than is necessary to locate the cause of excessive voltage.
6. Refer to HV, B+and Shutdown adjustment procedures described in the appropriate schematic and diagrams(where used).

PRODUCT SAFETY SERVICING GUIDELINES FOR COLOR TELEVISION RECEIVERS

SUBJECT : IMPLOSION

1. All direct viewed picture tubes are equipped with an integral implosion protection system, but care should be taken to avoid damage during installation. Avoid scratching the tube. If scratched, replace it.
2. Use only recommended factory replacement tubes.

SUBJECT : TIPS ON PROPER INSTALLATION

1. Never install any receiver in closed-in recess, cubbyhole or closely fitting shelf space over, or close to heat duct, or in the path of heated air flow.
2. Avoid conditions of high humidity such as : Outdoor patio installations where dew is a factor. Near steam radiators where steam leakage is a factor, etc.
3. Avoid placement where draperies may obstruct rear venting. The customer should also avoid the use of decorative scarves or other coverings which might obstruct ventilation.
4. Wall and shelf mounted installations using a commercial mounting kit, must follow the factory approved mounting instructions. A receiver mounted to a shelf or platform must retain its original feet(or the equivalent thickness in spacers) to provide adequate are flow across the bottom, bolts or screws used for fasteners must not touch and parts or wiring. Perform leakage test on customized installations.
5. Caution customers against the mounting of a receiver on sloping shelf or a tilted position, unless the receiver is properly secured.
6. A receiver on a roll-about cart should be stable on its mounting to the cart. Caution the customer on the hazards of trying to roll a cart with small casters across thresholds or deep pile carpets.
7. Caution customers against the use of a cart or stand which has not been listed by underwriters laboratories, inc. For use with their specific model of television receiver or generically approved for use with T.V.'s of the same or larger screen size.

2. SPECIFICATION

MODEL	DDQ-20L6SC
TV	STANDARD NTSC-M
POWER INPUT	AC 120V 60Hz
POWER CONSUMPTION	100W
TUNING RANGES	Frequency Synthesizer(FS) Tuning System TV VHF(L) : CH2-CH6 UHF(H) : CH7-CH13 UHF : CH14-CH69 CATV VHF(L) : 5A, A, B, A-5-A-1 CH2-CH6 VHF(H) : C-W+11 CH7-CH13 UHF : W+12-W+84
SOUND OUTPUT	3W + 3W
SPEAKER	8ohm 3W(NORNAL 3W, MAX 5W) x 2EA
ANTENNA INPUT IMPEDANCE	75ohm Unbalanced
AUXILIARY INPUT TERMINAL	REAR PART : S-VHS VIDEO, AUDIO(L,R) SIDE PART : VIDEO, AUDIO(L,R)
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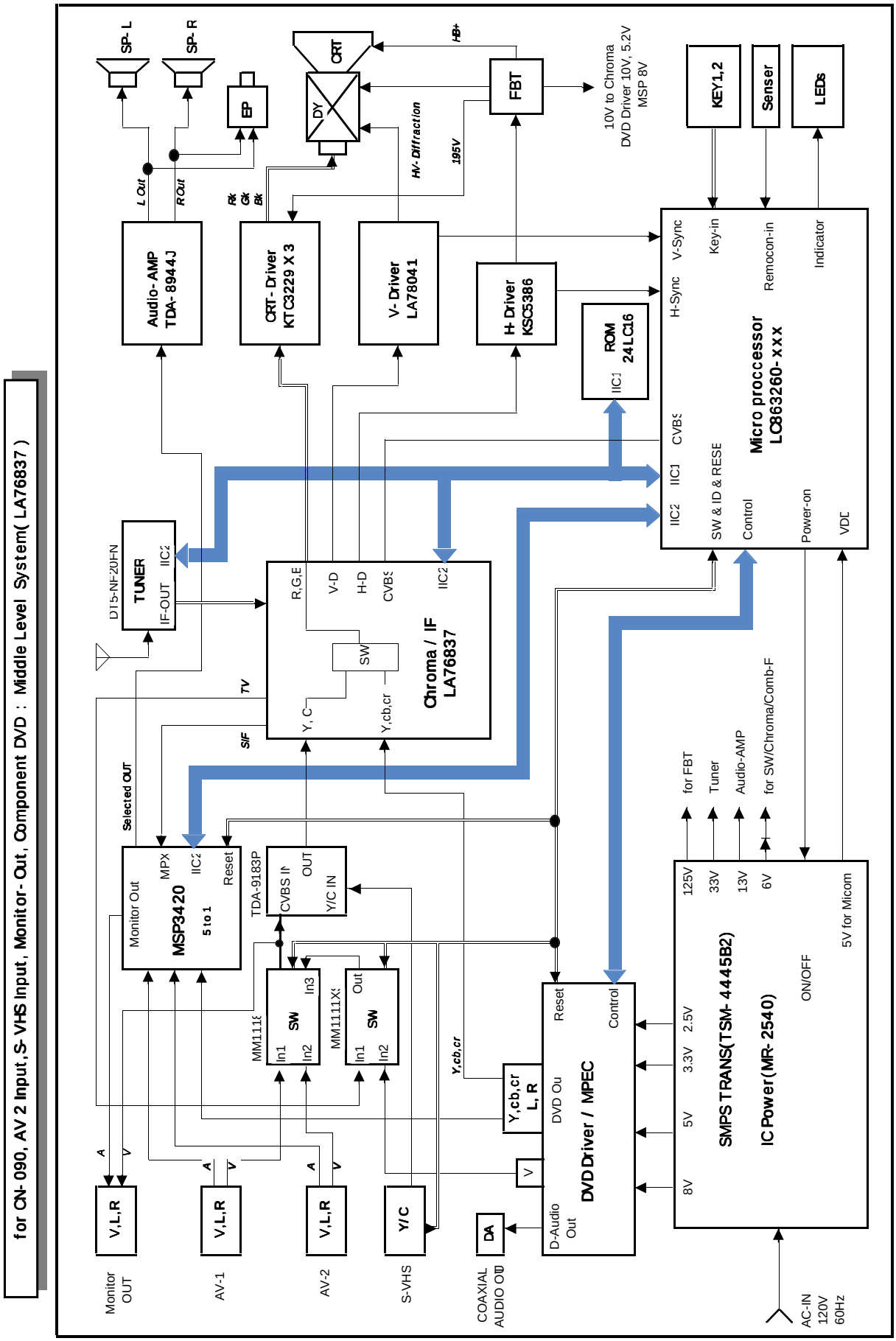
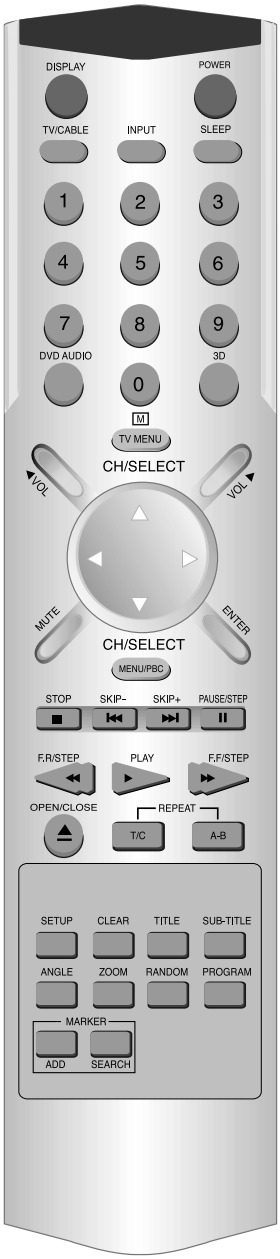
REMOTE CONTROL	R-52A01
SPECIAL FUNCTION	1) 3-LANGUAGE 2) WITH CAPTION 3) CH LABEL 4) V-CHIP 5) DYNAMIC SOUND 6) SURROUND 7) WAKE-UP/OFF TIMER 8) SLEEP TIMER 9) POWER RESTORE 10) COAXIAL DIGITAL AUDIO OUT 11) EARPHONE

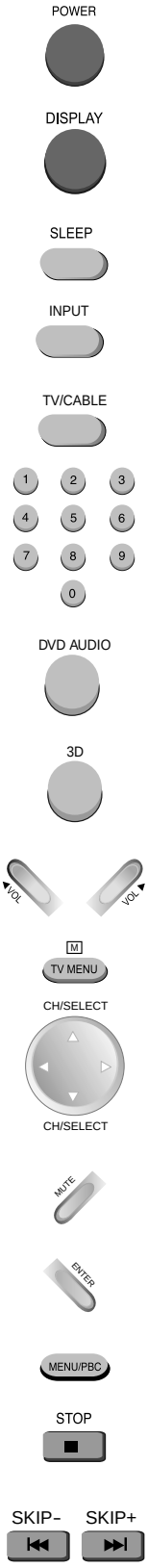
3. CIRCUIT BLOCK DIAGRAM



4. ALIGNMENT INSTRUCTIONS

4-1. REMOTE CONTROL (R-52A01)





POWER button

If you press the ON/OFF button in the front part of this product, power is on.

DISPLAY button

Operating status and MENU are displayed in a screen.

SLEEP button

You can set automatic POWER OFF.

INPUT button

You can select input mode(TV –> AV1 –> AV2 –> DVD).

TV/CABLE button

You can select air or cable.

NUMBER button

You can enter the relevant number directly or select a desired channel.

DVD AUDIO button

You can select the desired audio language.

3D button

You can select NORM or 3D surround.

VOLUME button

TV MENU button

CURSOR(▲▼◀▶), CHANNEL SELECT button

This button functions as cursor or channel select button in setting

TV/DVD and operating TV respectively.

MUTE button

Press this button if you only want to turn off the sound.

ENTER button

Press this button if DVD setting is completed.

MENU/PBC button

The DVD menu screen is displayed.

STOP button

SKIP BACK/SKIP FORWARD button

You can skip a screen while playing back or forward.

ALIGNMENT INSTRUCTIONS

PAUSE/STEP button

Pause screen and step screen are displayed while playing and pausing respectively.

PLAY button

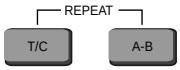
F.R/STEP or F.F/STEP button

You can search screen while playing back or forward.

DISC TRAY OPEN/CLOSE button

T/C button

You move into REPEAT mode whenever you press this button.



A-B button

You can play the given sections repeatedly.

SETUP button

You can set the DVD player.

CLEAR button

You can clear settings.

TITLE button

You can select the desired title.

SUBTITLE button

You can select the desired subtitle language.

Angle button

You can select the desired screen angle.

ZOOM button

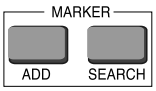
You can zoom in a screen.

RANDOM button

You can play and CD randomly.

PROGRAM button

You can program the desired playing order.



ADD button

You can mark the desired scene.

SEARCH button

You can reach the marked scene.

This button functions as a Marker Search button in DVD.

4-2. SERVICE MODE ADJUSTMENTS

Follow the steps below whenever service adjustment is required.

1) How to enter the service mode using the user remote control
   -. Turn the set on.
   -. Direct the remote control to the reception window of TV.
   -. Push buttons of remote control in sequence as follows.
      1 ——> MUTE ——> DISPLAY ——> MUTE
   -. Then, the screen will appear as follows.

S2	SCRN
S5	IFC
S6	GEO
S8	W/B
S9	DP
S12	FACT
S7	PTRN

   -. Using the channel up or down button, select the item you wish to adjust.
      (The color of selected item turns into the red.)
   -. Press " ▶ " button to enter in the service mode you wish to adjust."

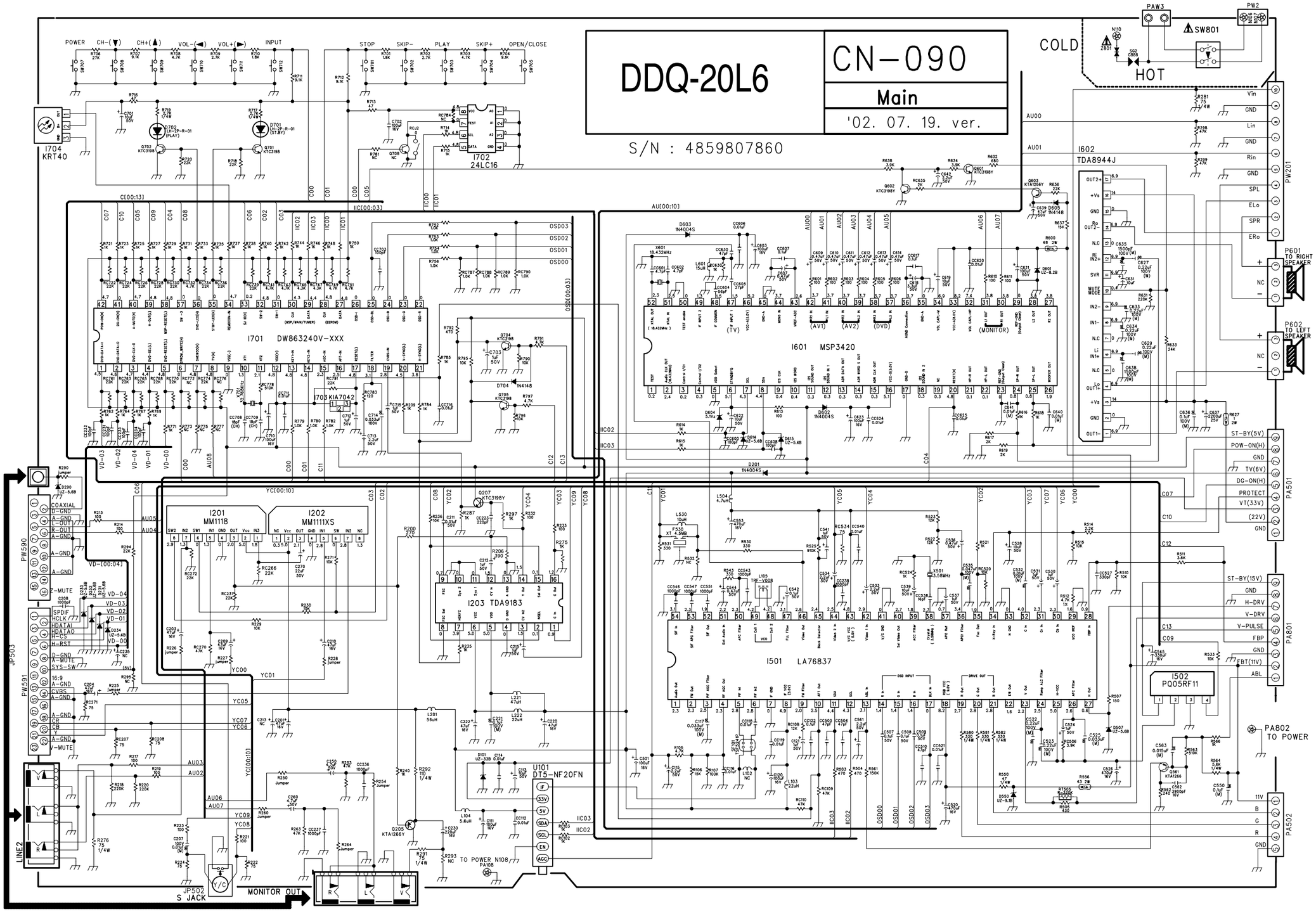
2) How to memorize the adjusted values in the service mode.
   -. Must press DISPLAY button the state which the screen is displaying each of menusafter all adjustments are completed each of all service menu.

4-3. ASSEMBLY ADJUSTMENTS

1) SCREEN ADJUSTMENT(S2)
   -. Enter the service mode and select service adjustment S2.
   -. You can see the one horizontal line on the screen.
   -. Adjust the Screen Control Volume(located on FBT)
   so that the horizontal line onscreen may be disappeared.
   -. Press S2 button again to make the screen normal condition.
   < CAUTION >
   IN THE SCREEN ADJUSTMENT MODE,
   DON'T PRESS OTHER BUTTONS EXCEPT S2 BUTTON.
2) FOCUS ADJUSTMENT
   -. Turn in a local station and adjust the Focus Control knob (located on FBT)
   for best picture details at high light condition.
3) RF AGC ADJUSTMENT(S5)
   -. Enter the service mode and select service adjustment S5.
   -. Receive the RF 100% full color bar 60dBuV attenuation signal.
   -. Start RF AGC Adj.Start using Service Remocon S5.
   -. Check for RF AGC Adj. OK OSD.
   -. Press the DISPLAY button to memorize the data.
4) GEOMETRIC ADJUSTMENTS(S6)
   -. Enter the service mode and select service adjustment S6.
   4-1). Horizontal Position Adjustment
   Select H-CENTER item, adjust H-CENTER data value to obtain proper horizontal centering of the internal cross pattern at the left and right of the screen.
   4-2). Vertical Position Adjustment
   Select V-CENTER item, adjust V-CENTER data value to center the raster properly on the screen.
   4-3). Vertical Size Adjustment
   "Select ""V.SIZE"" item, adjust ""V.SIZE"" data value to proper vertical size. "
   -. Press the DISPLAY button to memorize the data.
5) WHITE BALANCE ADJUSTMENT(S8)
   -. Receive a good local channel.
   -. Enter the service mode and select service adjustment S8.
   -. Using ◀ ▶ button, adjust service adjustment data of RD/GD/BD and RB/GB/BB until a good gray scale with normal whites is obtained.
   -. Press the DISPLAY button to memorize the data.
6) DIGITAL PRESET(D.P) ADJUSTMENTS(S9)
   -. Receive a good local channel.
   -. Enter the service mode and select service adjustment S9.
   -. Select SUB BRIGHT item,
   adjust SUB BRIGHT data value to obtain normal brightness level.
   -. Press the DISPLAY button to memorize the data.
7) FACTORY OUTGOING MODE(S12)
   -. If you select the S12, then the set becomes factory outgoing status.
" -. You can see the OSD ""outgoing OK""."

5. SCHEMATIC DIAGRAM

5-1 MAIN CIRCUIT DIAGRAM

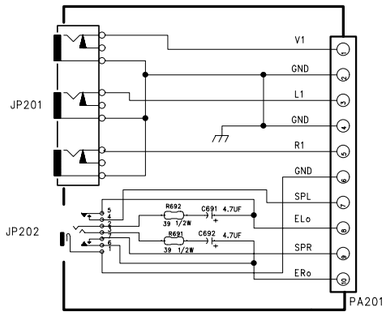


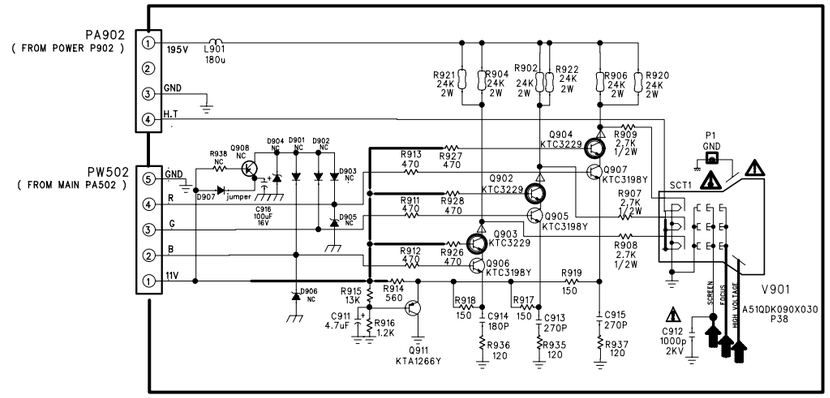
SCHEMATIC DIAGRAM

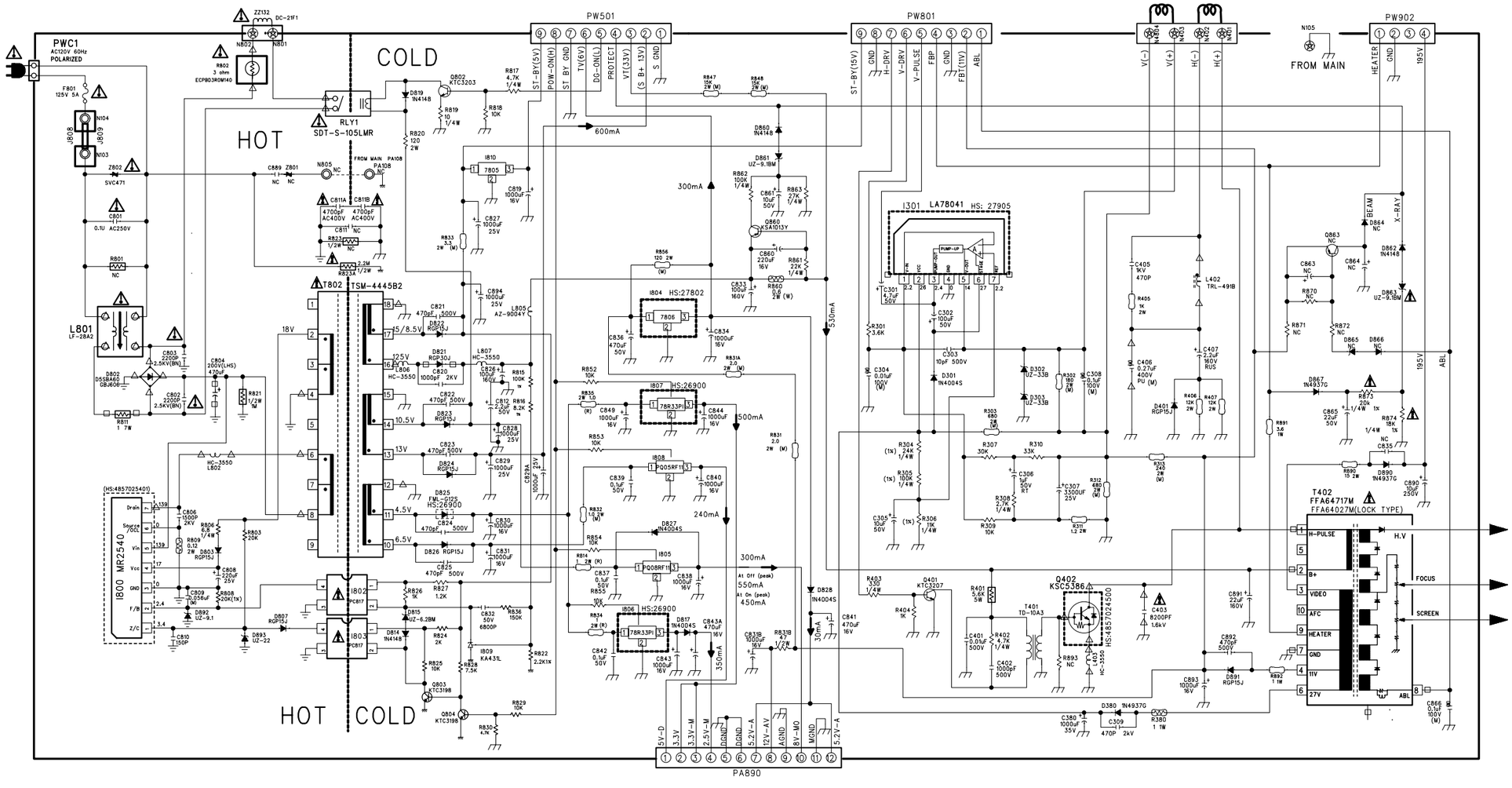
5-2 POWER CIRCUIT DIAGRAM

DDQ-20L6	CN-090
	Power/CRT/Ctrl
	'02. 07. 19. ver.

S/N : 4859813911



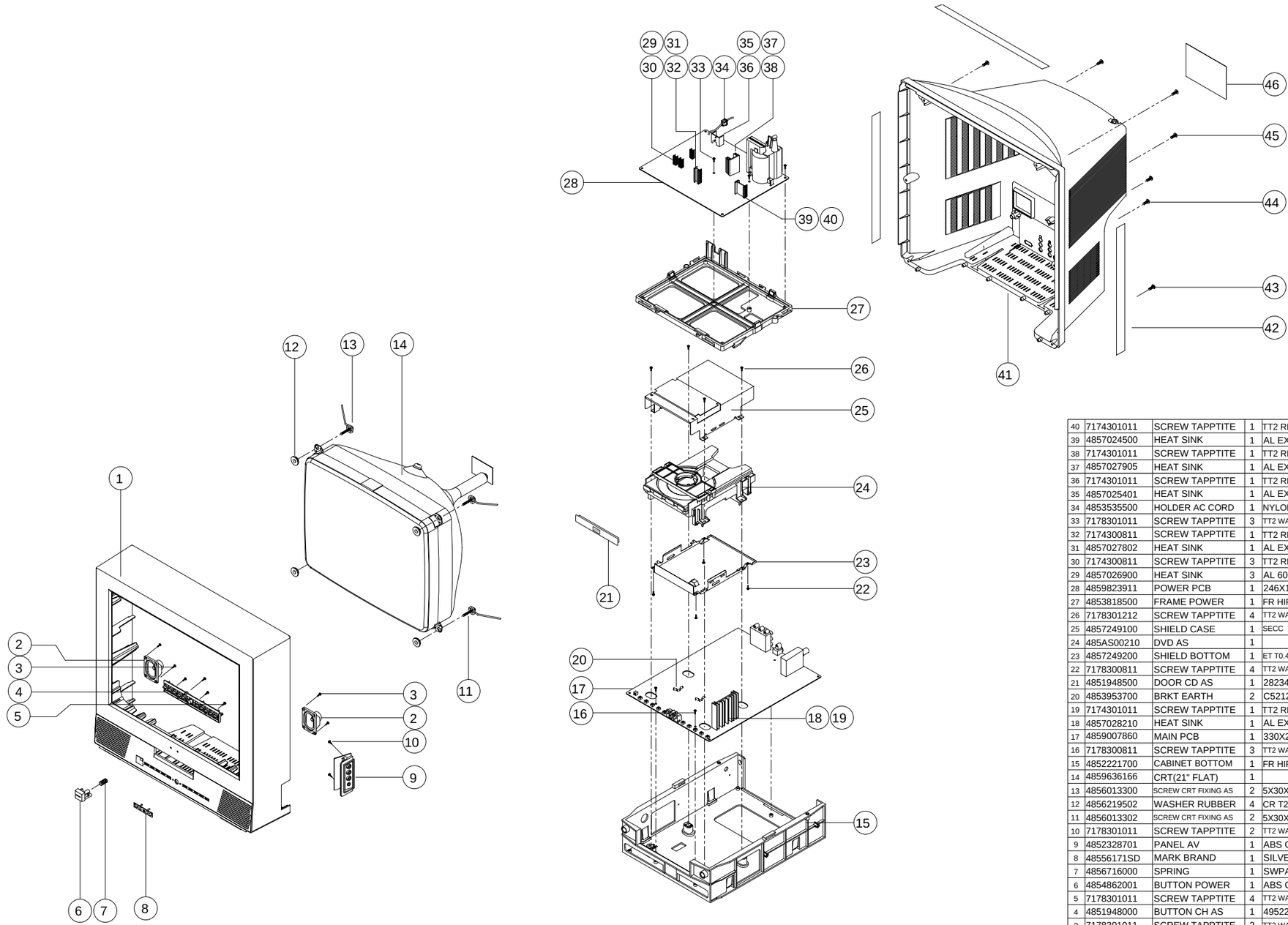




6. EXPLODED VIEW

D/N 485009KG

REV	LIST OF MODIFICATION	REASON OF MODIFICATION	DATE	NAME	APPR		
1							
2							



No	PART CODE	PART NAME	Q'ty	MATERIAL	REMARKS
40	7174301011	SCREW TAPPTITE	1	TT2 RND 3X10 MFZN	
39	4857024500	HEAT SINK	1	AL EX	
38	7174301011	SCREW TAPPTITE	1	TT2 RND 3X10 MFZN	
37	4857027905	HEAT SINK	1	AL EX	
36	7174301011	SCREW TAPPTITE	1	TT2 RND 3X10 MFZN	
35	4857025401	HEAT SINK	1	AL EX	
34	4853535500	HOLDER AC CORD	1	NYLON66 UL/CSA	
33	7178301011	SCREW TAPPTITE	3	TT2 WAS 3X10 MFZN	
32	7174300811	SCREW TAPPTITE	1	TT2 RND 3X8 MFZN	
31	4857027802	HEAT SINK	1	AL EX	
30	7174300811	SCREW TAPPTITE	3	TT2 RND 3X8 MFZN	
29	4857026900	HEAT SINK	3	AL 6063S	
28	4859823911	POWER PCB	1	246X197Xt1.6	
27	4853818500	FRAME POWER	1	FR HIPS BK	
26	7178301212	SCREW TAPPTITE	4	TT2 WAS 3X12 MFZN BK	
25	4857249100	SHIELD CASE	1	SECC T0.5	
24	485AS00210	DVD AS	1		
23	4857249200	SHIELD BOTTOM	1	ET T0.4	
22	7178300811	SCREW TAPPTITE	4	TT2 WAS 3X8 MFZN	
21	4851948500	DOOR CD AS	1	2823401+5800018	
20	4853953700	BRKT EARTH	2	C5212P-1/2M T0.2	
19	7174301011	SCREW TAPPTITE	1	TT2 RND 3X10 MFZN	
18	4857028210	HEAT SINK	1	AL EX	
17	4859007860	MAIN PCB	1	330X246Xt1.6	
16	7178300811	SCREW TAPPTITE	3	TT2 WAS 3X8 MFZN	
15	4852221700	CABINET BOTTOM	1	FR HIPS BK	
14	4859636166	CRT(21" FLAT)	1		
13	4856013300	SCREW CRT FIXING AS	2	5X30XL=80mm YL	
12	4856219502	WASHER RUBBER	4	CR T2.0	
11	4856013302	SCREW CRT FIXING AS	2	5X30XL=190mm YL	
10	7178301011	SCREW TAPPTITE	2	TT2 WAS 3X10 MFZN	
9	4852328701	PANEL AV	1	ABS GY	
8	48556171SD	MARK BRAND	1	SILVER DIA-CUTTING	
7	4856716000	SPRING	1	SWPA PIE0.5	
6	4854862001	BUTTON POWER	1	ABS GY	
5	7178301011	SCREW TAPPTITE	4	TT2 WAS 3X10 MFZN	
4	4851948000	BUTTON CH AS	1	49522+55465	
3	7178301011	SCREW TAPPTITE	2	TT2 WAS 3X10 MFZN	
2	4858304920	SPEAKER	2	SP-50110F03	
1	4852080600	MASK FRONT	1	FR HIPS GY	

No					
47					
46	4855415800	SPEC PLATE	1	150ART P/E FILM	
45	7178300811	SCREW TAPPTITE	1	TT2 WAS 3X8 MFZN	
44	7172401612	SCREW TAPPTITE	1	TT2 TRS 4X16 MFZN BK	41+FBT
43	7172401612	SCREW TAPPTITE	6	TT2 TRS 4X16 MFZN BK	1+41
42	4857817610	CLOTH BLACK	3	FELT 300X20X0.7	
41	4852161400	COVER BACK	1	FR HIPS GY	

UNITS	m/m	Designed by	Checked by	Inspected by	Approved by
SCALE	N/S		K.G.S		
			02/02/26		

PART NAME

DEVELOPMENT DWG

Daewoo Electronics CO.,LTD.
Mechanical Design Team, TV Research Center

MODEL: DDQ-21L6

REFERENCE: CN-090

D/N 485009KG

7. ELECTRICAL PARTS LIST

CAUTION

"⚠" is a safety patt, so it must be used the same part.
"Ⓡ" is a recommendable part for essential stock.

LOC	PARTS CODE	PART NAME	PART DESCRIPTION	REMARK
ZZ100	48B5552A01	TRANSMITTER REMOCON	R-52A01 (AAA)	Ⓡ
ZZ110	PTACPWJ986	ACCESSORY AS	DDQ-21L6SC	
10000	48586090E1	MANUAL INSTRUCTION	English	
M821	4858213800	BAG INSTRUCTION	L.D.P.E T0.05X250X400	
ZZ120	PTBCSHJ957	COVER BACK AS	DDQ-21L6FC	
M211	4852161400	COVER BACK	FR HIPS GY	
M781	4857817630	CLOTH BLACK	FELT 400X20X0.7	
ZZ130	PTPKCPJ957	PACKING AS	DDQ-21L6FC	
10	6520010100	STAPLE PIN	AUTO W65	
M801	4858060600	BOX CARTON	DW-3	
M801A	6520010100	STAPLE PIN	AUTO W65	
M811	4858199700	PAD	EPS	
M821	4858215000	BAG P.E	PE FOAM t0.5x1200x1150	
ZZ131	48519A7110	CRT GROUND NET	2101F-1015-1P	
ZZ132	58G0000154	COIL DEGAUSSING	DC-21F1	⚠
ZZ140	PTCACAJ986	CABINET AS	DDQ-21L6SC	
CRT1	4859636166	CRT	A51QDK090X030 P45	
M191	4851948500	DOOR AS	2823401+5800018 21L6	
M201A	4856013300	SCREW CRT FIXING	30X80 BK	
M201B	4856013302	SCREW CRT FIXING	30X190 BK	
M201C	4856219502	WASHER RUBBER	CR T2.0 BLACK	
M211A	7172401612	SCREW TAPPTITE	TT2 TRS 4X16 MFZN BK	
M211B	7178301212	SCREW TAPPTITE	TT2 WAS 3X12 MFZN BK	
M541	4855415800	SPEC PLATE	150ART P/E FILM (C/TV)	
SP01A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN	
SP02A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN	
ZZ200	PTFMSJJ957	MASK FRONT AS	DDQ-21L6FC	
M191	4851948000	BUTTON CH AS	4952201+5546500	
M191A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN	
M201	4852080600	MASK FRONT	FR HIPS GY	
M481	4854862001	BUTTON POWER	ABS GY	
M481A	4856716000	SPRING	SWPA PIE0.5	
M561	48556175SD	MARK BRAND	SILVER DIA-CUTTING	
ZZ210	PTSPPWJ957	SPEAKER AS	DDQ-21L6FC	
PA601	4850703S51	CONNECTOR	YH025-03+35098+ULW=300	
PA602	4850703S51	CONNECTOR	YH025-03+35098+ULW=300	
SP01	4858314010	SPEAKER	SP-5070F01 3W 8 OHM	
SP02	4858314010	SPEAKER	SP-5070F01 3W 8 OHM	
ZZ290	PTMPMSJ957	PCB MAIN MANUAL AS	DDQ-21L6FC	
10	2193102005	SOLDER BAR	SN:PB=63:47 S63S-1320	
30	2291050616	FLUX SOLDER	JS-64T3	
40	2291050301	FLUX SOLVENT	IM-1000	
C637	CEXF1E222V	C ELECTRO	25V RSS 2200MF (16X25) TP	
D701	DLH2PR01--	LED BLOCK	LH-2P-R-01	
D702	DLH2PR01--	LED BLOCK	LH-2P-R-01	
F530	5PYXT4R5MB	FILTER CERA	XT 4.5MB	Ⓡ
I201	1MM1118---	IC A/V SWITCH	MM1118	Ⓡ

LOC	PARTS CODE	PART NAME	PART DESCRIPTION	REMARK
I202	1MM1111XS-	IC SWITCH	MM1111XS	Ⓡ
I203	1TDA9183P-	IC COMBFILTER	TDA9183P	Ⓡ
I501	1LA76837--	IC	LA76837	Ⓡ
I502	1K78R05---	IC REGULATOR	KIA78R05PI	Ⓡ
I601	1MSP3420B8	IC SOUND PROCESSOR	MSP3420G-P0-B8	Ⓡ
I602	PTG2SW8210	HEAT SINK ASS`Y	1TDA8944J- + 7174300811	Ⓡ
00001	1TDA8944J-	IC SOUND	TDA8944J	Ⓡ
0000A	4857028210	HEAT SINK	AL EX	Ⓡ
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	Ⓡ
I702	1CAT24C16P	IC MEMORY	CAT24WC16P	Ⓡ
I704	1SRV21M---	IC PREAMP	SRV-21M	Ⓡ
JP502	4859106440	JACK S-VHS	PH-SJ-9503	Ⓡ
JP503	4859111950	JACK PIN BOARD	PH-JB-9516	Ⓡ
L105	58N0000042	COIL VCO	TRF-V008	Ⓡ
M101	485AS00210	DVD ASSY	MGD301NDM	Ⓡ
M191A	7178301212	SCREW TAPPTITE	TT2 WAS 3X12 MFZN BK	
M211A	7178300811	SCREW TAPPTITE	TT2 WAS 3X8 MFZN	
M211B	7178301212	SCREW TAPPTITE	TT2 WAS 3X12 MFZN BK	
M221	4852221700	CABINET BOTTOM	FR HIPS BK 21H9	
M391	4853953700	BRKT EARTH	C512P-1/2M T0.2	
M392	4853953700	BRKT EARTH	C512P-1/2M T0.2	
M721	4857249100	SHIELD CASE	ET T0.5 21L6	
M722	4857249200	SHIELD BOTTOM	ET T0.4 21L6	
M722A	7178300811	SCREW TAPPTITE	TT2 WAS 3X8 MFZN	
PA501	4850709S01	CONNECTOR	YH025-09+YST025+ULW=200	
PA502	4850705N11	CONNECTOR	SMH250-05+YBNT250+ULW=400	
PA590	4859200570	CONN FFC	K-16X150-1.00	Ⓡ
PA591	4859200670	CONN FFC	K-23X100-1.00	Ⓡ
PA801	4850709S01	CONNECTOR	YH025-09+YST025+ULW=200	
PA802	4850701S06	CONNECTOR	YFH800-01+YPT018+ULW=300	
PA891	4850712N03	CONNECTOR	YH025-12+GIL-S-12S+ULW300	Ⓡ
PW201	4859235320	CONN WAFER	YW025-10	
PW590	4859293220	CONN WAFER	GF102-16S-TS	Ⓡ
PW591	4859293320	CONN WAFER	GF102-23S-TS	Ⓡ
RT505	DR320K----	THERMISTOR	R-320K	Ⓡ
SF101	5PTSF5241P	FILTER SAW	TSF5241P	
SW707	5S50101090	SW TACT	THVH472GCA	
U101	4859721730	TUNER VARACTOR	DT5-NF20F N	Ⓡ
X601	5XE18R432E	CRYSTAL QUARTZ	HC-49/U 18.43200MHZ 30PPM	Ⓡ
X701	5XYR03276C	CRYSTAL QUARTZ	C-001R 32.768000KHZ 20PPM	Ⓡ
ZZ200	PTMPJ2J957	PCB CHIP MOUNT B AS	DDQ-21L6FC	
CC112	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC116	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC118	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC119	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC122	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CC223	HCQK221JCA	C CHIP CERA	50V CH 220PF J 2012	

ELECTRICAL PARTS LIST

LOC	PARTS CODE	PARTS NAME	DESCRIPTION	REMARK
CC231	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CC232	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CC233	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CC234	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CC236	HCQK102JCA	C CHIP CERA	50V CH 1000PF J 2012	
CC237	HCQK102JCA	C CHIP CERA	50V CH 1000PF J 2012	
CC503	HCQK470JCA	C CHIP CERA	50V CH 47PF J 2012	
CC504	HCQK470JCA	C CHIP CERA	50V CH 47PF J 2012	
CC510	HCQK470JCA	C CHIP CERA	50V CH 47PF J 2012	
CC521	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC527	HCQK331JCA	C CHIP CERA	50V CH 330PF J 2012	
CC538	HCQK160JCA	C CHIP CERA	50V CH 16PF J 2012	
CC540	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC543	HCQK102JCA	C CHIP CERA	50V CH 1000PF J 2012	
CC546	HCQK102JCA	C CHIP CERA	50V CH 1000PF J 2012	
CC547	HCQK102JCA	C CHIP CERA	50V CH 1000PF J 2012	
CC600	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CC601	HCQK479CCA	C CHIP CERA	50V CH 4.7PF C 2012	
CC602	HCQK479CCA	C CHIP CERA	50V CH 4.7PF C 2012	
CC604	HCQK560JCA	C CHIP CERA	50V CH 56PF J 2012	
CC605	HCQK270JCA	C CHIP CERA	50V CH 27PF J 2012	
CC606	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC607	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CC608	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CC617	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CC620	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC624	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC625	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC630	HCQK470JCA	C CHIP CERA	50V CH 47PF J 2012	
CC703	HCQK101JCA	C CHIP CERA	50V CH 100PF J 2012	
CC708	HCQK180JCA	C CHIP CERA	50V CH 18PF J 2012	
CC709	HCQK180JCA	C CHIP CERA	50V CH 18PF J 2012	
CC711	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
CC716	HCBK103KCA	C CHIP CERA	50V X7R 0.01MF K 2012	
RC102	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC103	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC108	HRFT123JCA	R CHIP	1/10 12K OHM J 2012	
RC109	HRFT473JCA	R CHIP	1/10 47K OHM J 2012	
RC110	HRFT473JCA	R CHIP	1/10 47K OHM J 2012	
RC207	HRFT750JCA	R CHIP	1/10 75 OHM J 2012	
RC208	HRFT750JCA	R CHIP	1/10 75 OHM J 2012	
RC231	HRFT223JCA	R CHIP	1/10 22K OHM J 2012	
RC266	HRFT223JCA	R CHIP	1/10 22K OHM J 2012	
RC270	HRFT473JCA	R CHIP	1/10 47K OHM J 2012	
RC271	HRFT750JCA	R CHIP	1/10 75 OHM J 2012	
RC272	HRFT223JCA	R CHIP	1/10 22K OHM J 2012	
RC506	HRFT392JCA	R CHIP	1/10 3.9K OHM J 2012	
RC520	HRFT103JCA	R CHIP	1/10 10K OHM J 2012	
RC524	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC534	HRFT750JCA	R CHIP	1/10 75 OHM J 2012	
RC630	HRFT681JCA	R CHIP	1/10 680 OHM J 2012	
RC635	HRFT202JCA	R CHIP	1/10 2K OHM J 2012	
RC722	HRFT223JCA	R CHIP	1/10 22K OHM J 2012	

LOC	PARTS CODE	PART NAME	PART DESCRIPTION	REMARK
RC724	HRFT223JCA	R CHIP	1/10 22K OHM J 2012	
RC726	HRFT223JCA	R CHIP	1/10 22K OHM J 2012	
RC728	HRFT223JCA	R CHIP	1/10 22K OHM J 2012	
RC730	HRFT223JCA	R CHIP	1/10 22K OHM J 2012	
RC732	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RC734	HRFT223JCA	R CHIP	1/10 22K OHM J 2012	
RC736	HRFT223JCA	R CHIP	1/10 22K OHM J 2012	
RC739	HRFT223JCA	R CHIP	1/10 22K OHM J 2012	
RC741	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RC743	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RC745	HRFT432JCA	R CHIP	1/10 4.3K OHM J 2012	
RC747	HRFT432JCA	R CHIP	1/10 4.3K OHM J 2012	
RC749	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RC751	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RC761	HRFT223JCA	R CHIP	1/10 22K OHM J 2012	
RC763	HRFT223JCA	R CHIP	1/10 22K OHM J 2012	
RC765	HRFT223JCA	R CHIP	1/10 22K OHM J 2012	
RC768	HRFT223JCA	R CHIP	1/10 22K OHM J 2012	
RC770	HRFT223JCA	R CHIP	1/10 22K OHM J 2012	
RC774	HRFT223JCA	R CHIP	1/10 22K OHM J 2012	
RC778	HRFT514JCA	R CHIP	1/10 510K OHM J 2012	
RC783	HRFT121JCA	R CHIP	1/10 120 OHM J 2012	
RC787	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC788	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC789	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC790	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC791	HRFT223JCA	R CHIP	1/10 22K OHM J 2012	
RCJ02	HRFT000-CA	R CHIP	1/10 0 OHM 2012	
ZZ200	PTMPJ0J957	PCB MAIN (RHU) AS	DDQ-21L6FC	
C520	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP	
C526	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP	
C553	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP	
ZZ200	PTMPJBJ957	PCB MAIN M-10 AS	DDQ-21L6FC	
10	2TM18006BE	TAPE MASKING	6.2X500	
P601	485923162S	CONN WAFER	YW025-03 (STICK)	
P602	485923162S	CONN WAFER	YW025-03 (STICK)	
R556	RS02Z430JS	R M-OXIDE FILM	2W 43 OHM J SMALL	
R600	RS02Z680JS	R M-OXIDE FILM	2W 68 OHM J SMALL	
R627	RS02Z109JS	R M-OXIDE FILM	2W 1 OHM J SMALL	
Z200	PTMPJRJ957	PCB MAIN RADIAL AS	DDQ-21L6FC	
C111	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C113	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C115	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C117	CMXM2A333J	C MYLAR	100V 0.033MF J (TP)	
C120	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C121	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C201	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
C203	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
C204	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
C207	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)	
C209	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
C210	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
C212	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	

LOC	PARTS CODE	PART NAME	PART DESCRIPTION	REMARK
C215	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C220	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
C221	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
C222	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
C230	CEXF1C221V	C ELECTRO	16V RSS 220MF (8X11.5) TP	
C250	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
C260	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
C270	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP	
C501	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C522	CMXM2A224J	C MYLAR	100V 0.22MF J	
C523	CMXM2A224J	C MYLAR	100V 0.22MF J	
C524	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C525	CMXM2A333J	C MYLAR	100V 0.033MF J (TP)	
C528	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C530	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C531	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C532	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)	
C533	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C534	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C535	CMXM2A473J	C MYLAR	100V 0.047MF J (TP)	
C536	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP	
C537	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C539	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C541	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C542	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C544	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C550	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
C561	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C562	CMXM2A392J	C MYLAR	100V 3900PF J (TP)	
C563	CMXM2A153J	C MYLAR	100V 0.015MF J (TP)	
C603	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C607	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP	
C609	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP	
C610	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP	
C611	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP	
C612	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP	
C613	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP	
C614	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP	
C618	CEXF1H339V	C ELECTRO	50V RSS 3.3MF (5X11) TP	
C619	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C621	CEXF1H101V	C ELECTRO	50V RSS 100MF (8X11.5) TP	
C622	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C623	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C627	CMXM2A224J	C MYLAR	100V 0.22MF J	
C629	CMXM2A224J	C MYLAR	100V 0.22MF J	
C631	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C633	CMXM2A224J	C MYLAR	100V 0.22MF J	
C634	CMXM2A224J	C MYLAR	100V 0.22MF J	
C635	CMXM2A152J	C MYLAR	100V 1500PF J (TP)	
C636	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
C638	CMXM2A152J	C MYLAR	100V 1500PF J (TP)	
C639	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP	
C640	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)	
C641	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)	
C642	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C701	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C702	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C703	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C710	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C712	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C713	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C714	CMXM2A333J	C MYLAR	100V 0.033MF J (TP)	
C715	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
I703	1K1A7042AP	IC REGULATOR	KIA7042AP	Ⓡ
Q205	TKTA1266Y-	TR	KTA1266Y (TP)	
Q207	TKTC3198Y-	TR	KTC3198Y	
Q561	TKTA1266Y-	TR	KTA1266Y (TP)	
Q601	TKTC3198Y-	TR	KTC3198Y	
Q602	TKTC3198Y-	TR	KTC3198Y	
Q603	TKTA1266Y-	TR	KTA1266Y (TP)	
Q701	TKTC3198Y-	TR	KTC3198Y	
Q702	TKTC3198Y-	TR	KTC3198Y	
Q704	TKTC3198Y-	TR	KTC3198Y	
Q705	TKTC3198Y-	TR	KTC3198Y	
SW701	5S50101Z90	SW TACT	THVV502GDA	
SW702	5S50101Z90	SW TACT	THVV502GDA	
SW703	5S50101Z90	SW TACT	THVV502GDA	
SW704	5S50101Z90	SW TACT	THVV502GDA	
SW705	5S50101Z90	SW TACT	THVV502GDA	
SW708	5S50101Z90	SW TACT	THVV502GDA	
SW709	5S50101Z90	SW TACT	THVV502GDA	
SW710	5S50101Z90	SW TACT	THVV502GDA	
SW711	5S50101Z90	SW TACT	THVV502GDA	
SW712	5S50101Z90	SW TACT	THVV502GDA	
X501	5XEX3R579C	CRYSTAL QUARTZ	HC-49/U 3.579545M (TP)	Ⓡ
ZZ200	PTMPJAJ957	PCB MAIN AXIAL AS	DDQ-21L6FC	
10	2TM14006LB	TAPE MASKING	3M #232 6.0X2000M	
20	2TM10006LB	TAPE MASKING	3M #232-MAP-C 6.2X2000M	
A002	4859807860	PCB MAIN	330X246 SIB	
C114	CCZF1H103Z	C CERA	50V F 0.01MF Z	
C208	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)	
C211	CCZF1H103Z	C CERA	50V F 0.01MF Z	
C507	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C508	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C509	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
D101	DUZ33B----	DIODE ZENER	UZ-33B	Ⓡ
D201	D1N4004S--	DIODE	1N4004S	
D231	DMTZJ5R6B-	DIODE ZENER	MTZJ 5.6B	
D232	DMTZJ5R6B-	DIODE ZENER	MTZJ 5.6B	
D233	DMTZJ5R6B-	DIODE ZENER	MTZJ 5.6B	
D234	DMTZJ5R6B-	DIODE ZENER	MTZJ 5.6B	
D507	DMTZJ5R6B-	DIODE ZENER	MTZJ 5.6B	
D550	DUZ9R1BM--	DIODE ZENER	UZ-9.1BM	
D601	DUZ8R2BM--	DIODE ZENER	UZ-8.2BM	
D602	D1N4004S--	DIODE	1N4004S	
D603	D1N4004S--	DIODE	1N4004S	

ELECTRICAL PARTS LIST

LOC	PARTS CODE	PART NAME	PART DESCRIPTION	REMARK
D604	DUZ5R1B---	DIODE ZENER	UZ-5.1B	
D605	D1N4148---	DIODE	1N4148 (TAPPING)	
D614	DUZ5R6BM--	DIODE ZENER	UZ-5.6BM	
D615	DUZ5R6BM--	DIODE ZENER	UZ-5.6BM	
D704	D1N4148---	DIODE	1N4148 (TAPPING)	
L103	5CPZ220K02	COIL PEAKING	22UH K (AXIAL 3.5MM)	
L104	5CPZ569K04	COIL PEAKING	5.6UH K (AXIAL 10.5MM)	
L201	5CPZ560K04	COIL PEAKING	56UH K (AXIAL 10.5MM)	
L221	5CPZ470K02	COIL PEAKING	47UH K (AXIAL 3.5MM)	
L222	5CPZ220K02	COIL PEAKING	22UH K (AXIAL 3.5MM)	
L504	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
L530	5CPZ100K02	COIL PEAKING	10UH K (AXIAL 3.5MM)	
L601	5CPZ150K02	COIL PEAKING	15UH K (AXIAL 3.5MM)	
R105	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R106	RD-AZ153J-	R CARBON FILM	1/6 15K OHM J	
R107	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J	
R200	RD-AZ271J-	R CARBON FILM	1/6 270 OHM J	
R206	RD-AZ391J-	R CARBON FILM	1/6 390 OHM J	
R209	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R213	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R214	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R217	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R218	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J	
R219	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R220	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J	
R221	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R222	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	
R223	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R224	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	
R225	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R226	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R227	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R228	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R229	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R230	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R232	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R233	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R235	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R236	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R240	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R250	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R253	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
R254	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R260	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R263	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
R264	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R271	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R275	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R276	RD-4Z750J-	R CARBON FILM	1/4 75 OHM J	
R281	RD-4Z750J-	R CARBON FILM	1/4 75 OHM J	
R287	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R290	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R291	RD-4Z750J-	R CARBON FILM	1/4 75 OHM J	

LOC	PARTS CODE	PART NAME	PART DESCRIPTION	REMARK
R292	RD-4Z111J-	R CARBON FILM	1/4 110 OHM J	
R294	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
R297	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R298	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
R299	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
R503	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R504	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R505	RD-AZ431J-	R CARBON FILM	1/6 430 OHM J	
R507	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J	
R510	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R511	RD-AZ362J-	R CARBON FILM	1/6 3.6K OHM J	
R512	RN-AZ4701F	R METAL FILM	1/6 4.7K OHM F	
R514	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J	
R515	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R521	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R522	RD-AZ123J-	R CARBON FILM	1/6 12K OHM J	
R523	RD-AZ123J-	R CARBON FILM	1/6 12K OHM J	
R525	RD-AZ914J-	R CARBON FILM	1/6 910K OHM J	
R530	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
R531	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
R533	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R543	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
R550	RD-4Z470J-	R CARBON FILM	1/4 47 OHM J	
R561	RD-AZ154J-	R CARBON FILM	1/6 150K OHM J	
R562	RD-AZ241J-	R CARBON FILM	1/6 240 OHM J	
R563	RD-AZ514J-	R CARBON FILM	1/6 510K OHM J	
R564	RD-4Z562J-	R CARBON FILM	1/4 5.6K OHM J	
R566	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R580	RD-4Z331J-	R CARBON FILM	1/4 330 OHM J	
R581	RD-4Z331J-	R CARBON FILM	1/4 330 OHM J	
R582	RD-4Z331J-	R CARBON FILM	1/4 330 OHM J	
R601	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R602	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R603	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R604	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R605	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R606	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R610	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R611	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R613	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
R614	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R615	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R616	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R617	RD-AZ202J-	R CARBON FILM	1/6 2K OHM J	
R618	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R619	RD-AZ202J-	R CARBON FILM	1/6 2K OHM J	
R631	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J	
R632	RD-AZ681J-	R CARBON FILM	1/6 680 OHM J	
R633	RD-AZ243J-	R CARBON FILM	1/6 24K OHM J	
R634	RD-AZ392J-	R CARBON FILM	1/6 3.9K OHM J	
R636	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
R637	RD-AZ153J-	R CARBON FILM	1/6 15K OHM J	
R638	RD-AZ392J-	R CARBON FILM	1/6 3.9K OHM J	

LOC	PARTS CODE	PART NAME	PART DESCRIPTION	REMARK
R701	RD-AZ182J-	R CARBON FILM	1/6 1.8K OHM J	
R702	RD-AZ272J-	R CARBON FILM	1/6 2.7K OHM J	
R703	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R704	RD-AZ912J-	R CARBON FILM	1/6 9.1K OHM J	
R706	RD-AZ273J-	R CARBON FILM	1/6 27K OHM J	
R707	RD-AZ912J-	R CARBON FILM	1/6 9.1K OHM J	
R708	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R709	RD-AZ272J-	R CARBON FILM	1/6 2.7K OHM J	
R710	RD-AZ182J-	R CARBON FILM	1/6 1.8K OHM J	
R711	RD-AZ912J-	R CARBON FILM	1/6 9.1K OHM J	
R712	RD-AZ912J-	R CARBON FILM	1/6 9.1K OHM J	
R713	RD-AZ470J-	R CARBON FILM	1/6 47 OHM J	
R714	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R715	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R716	RD-AZ470J-	R CARBON FILM	1/6 47 OHM J	
R717	RD-4Z272J-	R CARBON FILM	1/4 2.7K OHM J	
R718	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
R719	RD-4Z272J-	R CARBON FILM	1/4 2.7K OHM J	
R720	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
R721	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R723	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R725	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R727	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R729	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R731	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R733	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R735	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R737	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R738	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R740	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R742	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R744	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R746	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R748	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R750	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R752	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R753	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R754	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R756	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R762	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R764	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R767	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R769	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R771	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R779	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R780	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R782	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R784	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R785	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R790	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R791	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R792	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R795	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	

LOC	PARTS CODE	PART NAME	PART DESCRIPTION	REMARK
R796	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R797	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
ZZ300	PTPWMSJ957	PCB POWER MANUAL AS	DDQ-21L6FC	
10	2193102005	SOLDER BAR	SN:PB=63:47 S63S-1320	
30	2291050616	FLUX SOLDER	JS-64T3	
40	2291050301	FLUX SOLVENT	IM-1000	
C307	CEYF1E332V	C ELECTRO	25V RSS 3300MF (16X31.5)	
C401	CCYB2H103K	C CERA	500V B 0.01MF K	
C403	CMYH3C822J	C MYLAR	1.6KV BUP 8200PF J	⚠
C406	CMYE2G274J	C MYLAR	400V PU 0.27MF J	
C801	CL1UC3104M	C LINE ACROSS	WORLD AC250V 0.1UF M R.47	⚠
C802	CH1BFE222M	C CERA AC	U/C/V AC400V 2200PF	⚠
C803	CH1BFE222M	C CERA AC	U/C/V AC400V 2200PF	⚠
C804	CEXN2E471P	C ELECTRO	250V LHS 470MF (22X40)	
C806	CBYB3D152K	C CERA SEMI	2KV BL(N) 1500PF K	
C811A	CH1BFE472M	C CERA AC	AC400V 4700PF M U/C/V	⚠
C811B	CH1BFE472M	C CERA AC	AC400V 4700PF M U/C/V	⚠
C912	CBYB3D102K	C CERA SEMI	2KV BL(N) 1000PF K	⚠
D802	DPBS606GU-	DIODE BRIDGE	PBS606G	Ⓡ
D821	DRGP30J---	DIODE	RGP30J	Ⓡ
D825	PTP2SW6900	HEAT SINK ASS`Y	DFMLG12S-- + 7174300811	Ⓡ
00001	DFMLG12S--	DIODE	FML-G12S	Ⓡ
0000A	4857026900	HEAT SINK	AL EX	Ⓡ
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	Ⓡ
F801	5FJGB5021L	FUSE GLASS TUBE	JIS MF51 5A 125V TL	⚠
I301	PTC2SW7905	HEAT SINK ASS`Y	1LA78041-- + 7174300811	Ⓡ
00001	1LA78041--	IC VERTICAL	LA78041	Ⓡ
0000A	4857027905	HEAT SINK	AL EX BK	Ⓡ
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	Ⓡ
I800	PTP2SW5401	HEAT SINK ASS`Y	1MR2540--- + 7174300811	Ⓡ
00001	1MR2540---	IC POWER	MR2540	Ⓡ
0000A	4857025401	HEAT SINK	A1050P-H24 T2	Ⓡ
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	Ⓡ
I802	1KP1010C--	IC PHOTO COUPLER	KP-1010C	⚠
I803	1KP1010C--	IC PHOTO COUPLER	KP-1010C	⚠
I804	PTN2SW7802	HEAT SINK ASS`Y	1KA7806--- + 7174300811	Ⓡ
00001	1KA7806---	IC	KA7806	Ⓡ
0000A	4857027802	HEAT SINK	AL EX	Ⓡ
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	Ⓡ
I805	1KA78R08--	IC REGULATOR	KA78R08	Ⓡ
I806	PT22SW6900	HEAT SINK ASS`Y	1K1A78R33P + 7174300811	Ⓡ
00001	1K1A78R33P	IC REGULATOR	KIA78R33PI	Ⓡ
0000A	4857026900	HEAT SINK	AL EX	Ⓡ
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	Ⓡ
I807	PT22SW6900	HEAT SINK ASS`Y	1K1A78R33P + 7174300811	Ⓡ
00001	1K1A78R33P	IC REGULATOR	KIA78R33PI	Ⓡ
0000A	4857026900	HEAT SINK	AL EX	Ⓡ
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	Ⓡ
I808	1K78R05---	IC REGULATOR	KIA78R05PI	Ⓡ
I810	1KA7805---	IC REGULATOR	KA7805	Ⓡ
JP201	4859105450	JACK PIN BOARD	YSC03P-4120-9S	
JP202	4859105240	JACK PHONE	LGT1516-0100	
L402	58H0000070	COIL H-LINEARITY	TRL-491B	Ⓡ

ELECTRICAL PARTS LIST

LOC	PARTS CODE	PART NAME	PART DESCRIPTION	REMARK
L801	5PLF28A2--	FILTER LINE	LF-28A2	⚠
M231	4852328701	PANEL AV	ABS GY 21L6	
M231A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN	
M352	4853535500	HOLDER CORD	NYLON 66	
M381	4853818500	FRAME POWER	FR HIPS BK 21H9	
M381A	7178301212	SCREW TAPPTITE	TT2 WAS 3X12 MFZN BK	
PA201	4850710V04	CONNECTOR	YH025-10+YBNH250+ULW=200	
PA890	4859235520	CONN WAFER	YW025-12	
PA902	4850704N17	CONNECTOR	SMH025-04+YBNH250+ULW=300	
PW502	4859284620	CONN WAFER	SMW250-05	
PW902	4859284520	CONN WAFER	SMW250-04	
PWC01	4859907810	CORD POWER AS	ME301P+TER=2100	⚠
Q402	PTU2SW4500	HEAT SINK ASS`Y	TKSC5386-- + 7174300811	Ⓡ
00001	TKSC5386--	TR	KSC5386	Ⓡ
0000A	4857024500	HEAT SINK	AL EX B/K	Ⓡ
0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	Ⓡ
Q902	TKTC3229--	TR	KTC3229	Ⓡ
Q903	TKTC3229--	TR	KTC3229	Ⓡ
Q904	TKTC3229--	TR	KTC3229	Ⓡ
R401	RX05B562JP	R CEMENT	5W 5.6K OHM J BEN 15MM 4P	Ⓡ
R802	DDB3R0M140	POSISTOR	ECPBD3R0M140	⚠
R809	RW02Z128KS	R WIRE WOUND	2W 0.12 OHM K SMALL	Ⓡ
R811	RX07B109JP	R CEMENT	7W 1 OHM J BEN 15MM4P	Ⓡ
R860	RW02Z608F-	R WIRE WOUND	2W 0.6 OHM F	Ⓡ
RLY1	5SC0101339	SW RELAY	SDT-S-105LMR	⚠
SCT1	4859303530	SOCKET CRT	PCS629-03C	⚠
T401	50D10A3---	TRANS DRIVE	TD-10A3	Ⓡ
T402	50H0000239	FBT	FFA64027M	⚠
T802	50M4445B2-	TRANS SMPS	TSM-4445B2	⚠
Z802	DSVC471D14	VARISTOR	SVC471D14A	⚠
ZZ200	PTPWJ0J957	PCB POWER ODD SHAPE (RHU) AS	DDQ-21L6FC	
C380	CEXF1V102V	C ELECTRO	35V RSS 1000MF (13X25) TP	
C819	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C820	CBXB3D102K	C CERA SEMI	2KV BL(N) 1000PF K (T)	
C826	CEXF2C101C	C ELECTRO	160V RUS 100MF (16X25) TP	
C827	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP	
C828	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP	
C829	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP	
C829A	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP	
C830	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C831	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C831B	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C833	CEXF2C101V	C ELECTRO	160V RSS 100MF (16X25) TP	
C834	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C836	CEXF1H471V	C ELECTRO	50V RSS 470MF (13X20) TP	
C838	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C840	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C841	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP	
C843	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C843A	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP	
C844	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C890	CEXF2E100V	C ELECTRO	250V RSS 10MF (10X20) TP	
C891	CEXF2C220V	C ELECTRO	160V RSS 22MF (10X20) TP	

LOC	PARTS CODE	PART NAME	PART DESCRIPTION	REMARK
C893	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
C894	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP	
ZZ200	PTPWJBJ957	PCB POWER M-10 AS	DDQ-21L6FC	
10	2TM18006BE	TAPE MASKING	6.2X500	
N401	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
N402	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
N403	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
N404	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
N801	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
N802	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
N805	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
PW501	485923522S	CONN WAFER	YW025-09 (STICK)	
PW801	485923522S	CONN WAFER	YW025-09 (STICK)	
R302	RS02Z181JS	R M-OXIDE FILM	2W 180 OHM J SMALL	
R303	RS02Z681JS	R M-OXIDE FILM	2W 680 OHM J SMALL	
R311	RS02Z129JS	R M-OXIDE FILM	2W 1.2 OHM J SMALL	
R312	RS02Z681JS	R M-OXIDE FILM	2W 680 OHM J SMALL	
R313	RS02Z241JS	R M-OXIDE FILM	2W 240 0HM J SMALL	
R380	RS02Z109JS	R M-OXIDE FILM	2W 1 OHM J SMALL	
R405	RS02Z102JS	R M-OXIDE FILM	2W 1K OHM J SMALL	
R406	RS02Z123JS	R M-OXIDE FILM	2W 12K 0HM J SMALL	
R407	RS02Z123JS	R M-OXIDE FILM	2W 12K 0HM J SMALL	
R820	RS02Z121JS	R M-OXIDE FILM	2W 120 OHM J SMALL	
R831	RS02Z209JS	R M-OXIDE FILM	2W 2 OHM J SMALL	
R831A	RS02Z209JS	R M-OXIDE FILM	2W 2 OHM J SMALL	
R833	RS02Z339JS	R M-OXIDE FILM	2W 3.3 OHM J SMALL	
R847	RS02Z153JS	R M-OXIDE FILM	2W 15K OHM J SMALL	
R848	RS02Z153JS	R M-OXIDE FILM	2W 15K OHM J SMALL	
R856	RS02Z121JS	R M-OXIDE FILM	2W 120 OHM J SMALL	
R890	RS02Z150JS	R M-OXIDE FILM	2W 15 OHM J SMALL	
R891	RS01Z369J-	R M-OXIDE FILM	1W 3.6 OHM J (TAPPING)	
R892	RS02Z109JS	R M-OXIDE FILM	2W 1 OHM J SMALL	
R902	RS02Z243JS	R M-OXIDE FILM	2W 24K OHM J SMALL	
R904	RS02Z243JS	R M-OXIDE FILM	2W 24K OHM J SMALL	
R906	RS02Z243JS	R M-OXIDE FILM	2W 24K OHM J SMALL	
R920	RS02Z243JS	R M-OXIDE FILM	2W 24K OHM J SMALL	
R921	RS02Z243JS	R M-OXIDE FILM	2W 24K OHM J SMALL	
R922	RS02Z243JS	R M-OXIDE FILM	2W 24K OHM J SMALL	
ZZ200	PTPWJRJ957	PCB POWER RADIAL AS	DDQ-21L6FC	
C301	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
C302	CEXF1H101V	C ELECTRO	50V RSS 100MF (8X11.5) TP	
C303	CXSL2H100D	C CERA	500V SL 10PF D (TAPPING)	
C304	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)	
C305	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C306	CEXD1H109Q	C ELECTRO	50V RT 1MF (6.3X11) TP	
C308	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
C309	CCXB2H471K	C CERA	500V B 470PF K (TAPPING)	
C402	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
C405	CCXB2H471K	C CERA	500V B 470PF K (TAPPING)	
C407	CEXF2C229V	C ELECTRO	160V RSS 2.2MF (8X11.5)TP	
C691	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
C692	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
C808	CEXF1E221V	C ELECTRO	25V RSS 220MF (8X11.5) TP	

LOC	PARTS CODE	PART NAME	PART DESCRIPTION	REMARK
C809	CMXM2A563J	C MYLAR	100V 0.056MF J (TP)	
C812	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C821	CCXB2H471K	C CERA	500V B 470PF K (TAPPING)	
C822	CCXB2H471K	C CERA	500V B 470PF K (TAPPING)	
C823	CCXB2H471K	C CERA	500V B 470PF K (TAPPING)	
C824	CCXB2H471K	C CERA	500V B 470PF K (TAPPING)	
C825	CCXB2H471K	C CERA	500V B 470PF K (TAPPING)	
C832	CMXM2A682J	C MYLAR	100V 6800PF J (TP)	
C860	CEXF1C221V	C ELECTRO	16V RSS 220MF (8X11.5) TP	
C861	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C865	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP	
C866	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
C892	CCXB2H471K	C CERA	500V B 470PF K (TAPPING)	
C911	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
C916	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
F801A	4857415001	CLIP FUSE	PFC5000-0702	
F801B	4857415001	CLIP FUSE	PFC5000-0702	
I809	1KA431L---	IC	KA431L	Ⓡ
L805	58CX430599	COIL CHOKE	AZ-9004Y 940K TP	Ⓡ
L901	5CPX181J--	COIL PEAKING	180UH J (RADIAL)	
Q401	TKTC3207--	TR	KTC3207 (TP)	Ⓡ
Q802	TKTC3203Y-	TR	KTC3203-Y	Ⓡ
Q803	TKTC3198Y-	TR	KTC3198Y	
Q804	TKTC3198Y-	TR	KTC3198Y	
Q860	TKSA1013Y-	TR	KSA1013Y (TP)	
Q905	TKTC3198Y-	TR	KTC3198Y	
Q906	TKTC3198Y-	TR	KTC3198Y	
Q907	TKTC3198Y-	TR	KTC3198Y	
Q911	TKTA1266Y-	TR	KTA1266Y (TP)	
R814	RN02B109JS	R METAL FILM	2W 1 OHM J SMALL	
R832	RN02B109JS	R METAL FILM	2W 1 OHM J SMALL	
R834	RN02B109JS	R METAL FILM	2W 1 OHM J SMALL	
R835	RN02B109JS	R METAL FILM	2W 1 OHM J SMALL	
ZZ200	PTPWJAJ957	PCB POWER AXIAL AS	DDQ-21L6FC	
10	2TM14006LB	TAPE MASKING	3M #232 6.0X2000M	
20	2TM10006LB	TAPE MASKING	3M #232-MAP-C 6.2X2000M	
A001	4859813911	PCB POWER	246X246 SIB	
C810	CCZB1H151K	C CERA	50V B 150PF K (AXIAL)	
C837	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C839	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C842	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C849	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
C913	CCZB1H271K	C CERA	50V B 270PF K	
C914	CCZB1H181K	C CERA	50V B 180PF K (AXIAL)	
C915	CCZB1H271K	C CERA	50V B 270PF K	
D301	D1N4004S--	DIODE	1N4004S	
D302	DUZ33B----	DIODE ZENER	UZ-33B	Ⓡ
D303	DUZ33B----	DIODE ZENER	UZ-33B	Ⓡ
D380	D1N4937G--	DIODE	1N4937G (TAPPING)	
D401	DRGP15J---	DIODE	RGP15J	
D803	DRGP15J---	DIODE	RGP15J	
D807	DRGP15J---	DIODE	RGP15J	
D814	D1N4148---	DIODE	1N4148 (TAPPING)	

LOC	PARTS CODE	PART NAME	PART DESCRIPTION	REMARK
D815	DUZ6R2BM--	DIODE ZENER	UZ-6.2BM	
D817	D1N4004S--	DIODE	1N4004S	
D819	D1N4148---	DIODE	1N4148 (TAPPING)	
D822	DRGP15J---	DIODE	RGP15J	
D823	DRGP15J---	DIODE	RGP15J	
D824	DRGP15J---	DIODE	RGP15J	
D826	DRGP15J---	DIODE	RGP15J	
D827	D1N4004S--	DIODE	1N4004S	
D828	D1N4004S--	DIODE	1N4004S	
D860	D1N4148---	DIODE	1N4148 (TAPPING)	
D861	DUZ9R1BM--	DIODE ZENER	UZ-9.1BM	
D862	D1N4148---	DIODE	1N4148 (TAPPING)	
D863	DUZ9R1BM--	DIODE ZENER	UZ-9.1BM	⚠
D867	D1N4937G--	DIODE	1N4937G (TAPPING)	
D890	D1N4937G--	DIODE	1N4937G (TAPPING)	
D891	DRGP15J---	DIODE	RGP15J	
D892	DUZ9R1BM--	DIODE ZENER	UZ-9.1BM	Ⓡ
D893	DMTZJ22D--	DIODE ZENER	MTZJ 22D	Ⓡ
D907	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
L403	5MC0000100	COIL BEAD	HC-3550	
L802	5MC0000100	COIL BEAD	HC-3550	
L806	5MC0000100	COIL BEAD	HC-3550	
L807	5MC0000100	COIL BEAD	HC-3550	
R301	RD-4Z362J-	R CARBON FILM	1/4 3.6K OHM J	
R304	RN-4Z2402F	R METAL FILM	1/4 24K OHM F	Ⓡ
R305	RN-4Z1003F	R METAL FILM	1/4 100K OHM F	Ⓡ
R306	RN-AZ1102F	R METAL FILM	1/6 11.0K OHM F	Ⓡ
R307	RD-4Z303J-	R CARBON FILM	1/4 30K OHM J	
R308	RD-4Z272J-	R CARBON FILM	1/4 2.7K OHM J	
R309	RN-4Z1002F	R METAL FILM	1/4 10K OHM F	Ⓡ
R310	RD-AZ333J-	R CARBON FILM	1/6 33K OHM J	
R402	RD-4Z472J-	R CARBON FILM	1/4 4.7K OHM J	
R403	RD-4Z331J-	R CARBON FILM	1/4 330 OHM J	
R404	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R691	RD-2Z330J-	R CARBON FILM	1/2 33 OHM J	
R692	RD-2Z330J-	R CARBON FILM	1/2 33 OHM J	
R803	RD-AZ203J-	R CARBON FILM	1/6 20K OHM J	
R806	RD-4Z689J-	R CARBON FILM	1/4 6.8 OHM J	
R808	RN-4Z2002F	R METAL FILM	1/4 20.0K OHM F	Ⓡ
R815	RN-AZ1003F	R METAL FILM	1/6 100K OHM F	Ⓡ
R816	RD-AZ822J-	R CARBON FILM	1/6 8.2K OHM J	
R817	RD-4Z472J-	R CARBON FILM	1/4 4.7K OHM J	
R818	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R819	RD-4Z100J-	R CARBON FILM	1/4 10 OHM J	
R821	RC-2Z105KP	R CARBON COMP	1/2 1M OHM K	
R822	RN-AZ2201F	R METAL FILM	1/6 2.2K OHM F	Ⓡ
R823A	RC-2Z225KP	R CARBON COMP	1/2 2.2M OHM K	⚠
R824	RD-AZ202J-	R CARBON FILM	1/6 2K OHM J	
R825	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R826	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R827	RD-AZ122J-	R CARBON FILM	1/6 1.2K OHM J	
R828	RD-AZ752J-	R CARBON FILM	1/6 7.5K OHM J	
R829	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	

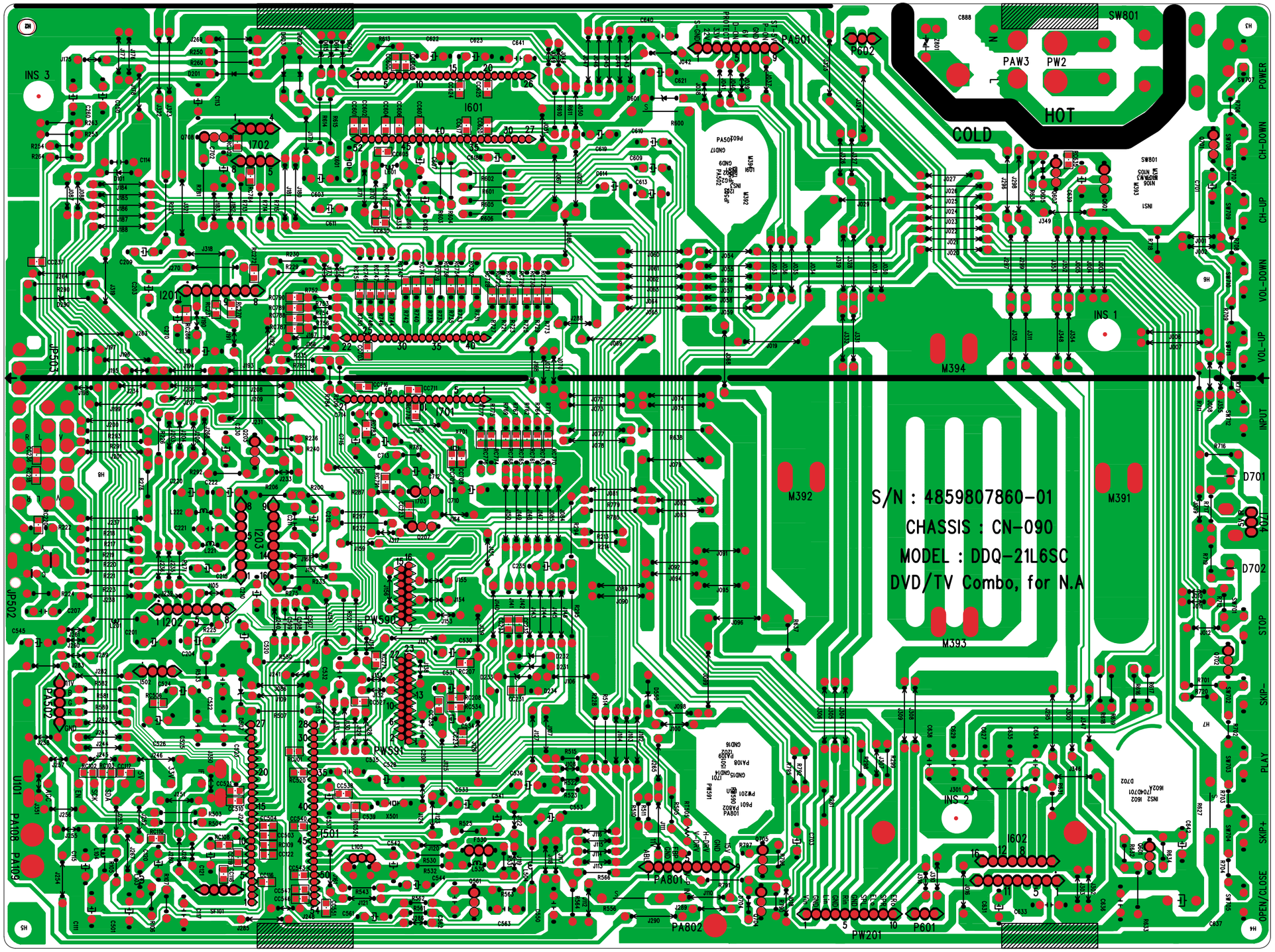
ELECTRICAL PARTS LIST

LOC	PARTS CODE	PART NAME	PART DESCRIPTION	REMARK
R830	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R831B	RD-2Z470J-	R CARBON FILM	1/2 47 OHM J	
R836	RD-AZ154J-	R CARBON FILM	1/6 150K OHM J	
R852	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R853	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R854	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R855	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R861	RD-4Z223J-	R CARBON FILM	1/4 22K OHM J	
R862	RD-4Z104J-	R CARBON FILM	1/4 100K OHM J	
R863	RD-4Z273J-	R CARBON FILM	1/4 27K OHM J	
R873	RN-4Z2002F	R METAL FILM	1/4 20.0K OHM F	⚠
R874	RN-4Z1602F	R METAL FILM	1/4 16.0K OHM F	⚠
R901	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
R907	RC-2Z272K-	R CARBON COMP	1/2 2.7K OHM K	
R908	RC-2Z272K-	R CARBON COMP	1/2 2.7K OHM K	
R909	RC-2Z272K-	R CARBON COMP	1/2 2.7K OHM K	
R911	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R912	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R913	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	

LOC	PARTS CODE	PART NAME	PART DESCRIPTION	REMARK
R914	RD-AZ561J-	R CARBON FILM	1/6 560 OHM J	
R915	RD-AZ133J-	R CARBON FILM	1/6 13K OHM J	
R916	RD-AZ122J-	R CARBON FILM	1/6 1.2K OHM J	
R917	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J	
R918	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J	
R919	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J	
R926	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R927	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R928	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R935	RD-AZ121J-	R CARBON FILM	1/6 120 OHM J	
R936	RD-AZ121J-	R CARBON FILM	1/6 120 OHM J	
R937	RD-AZ121J-	R CARBON FILM	1/6 120 OHM J	

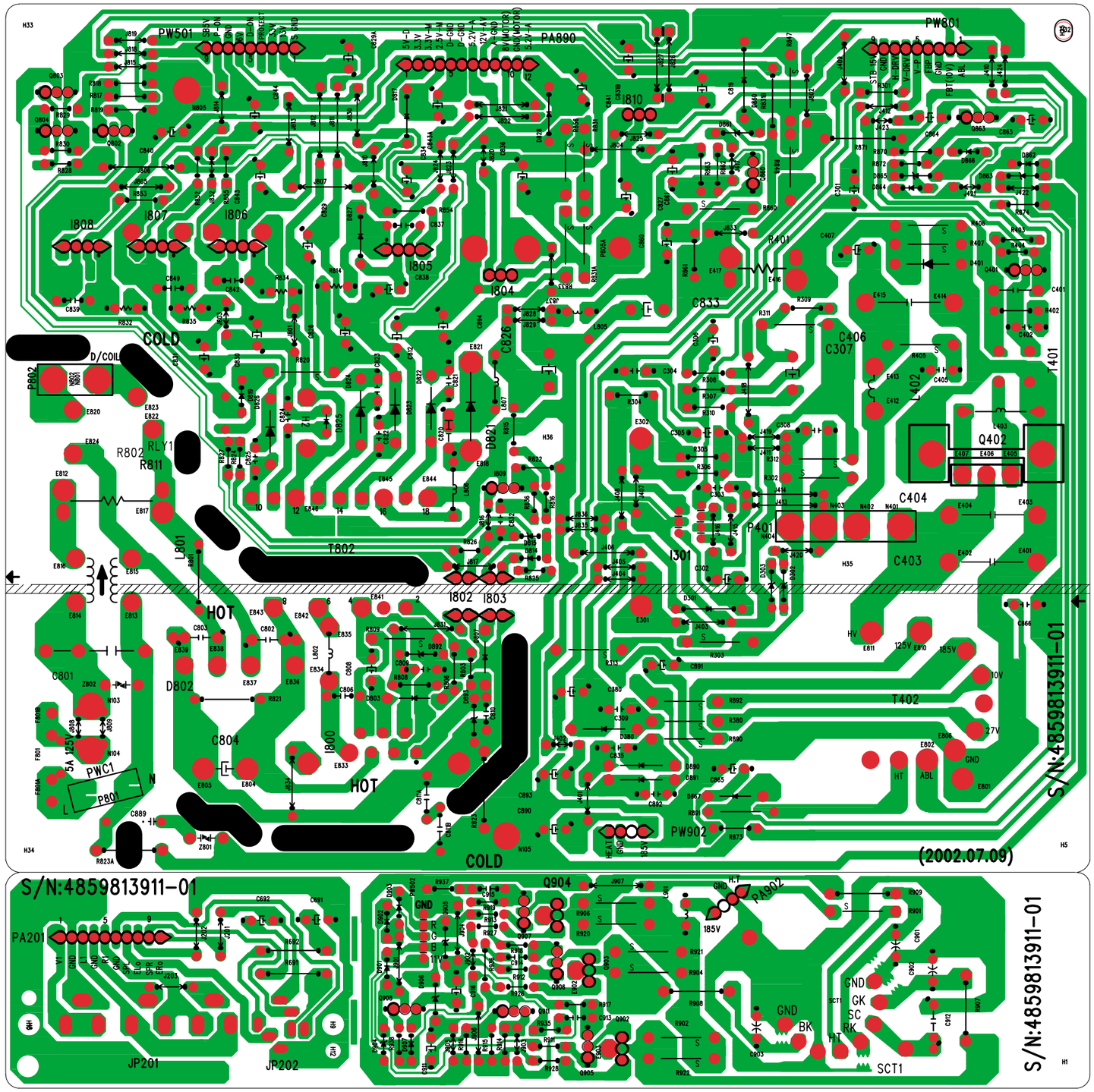
7. PRINTED CIRCUIT BOARD

7-1 PCB MAIN



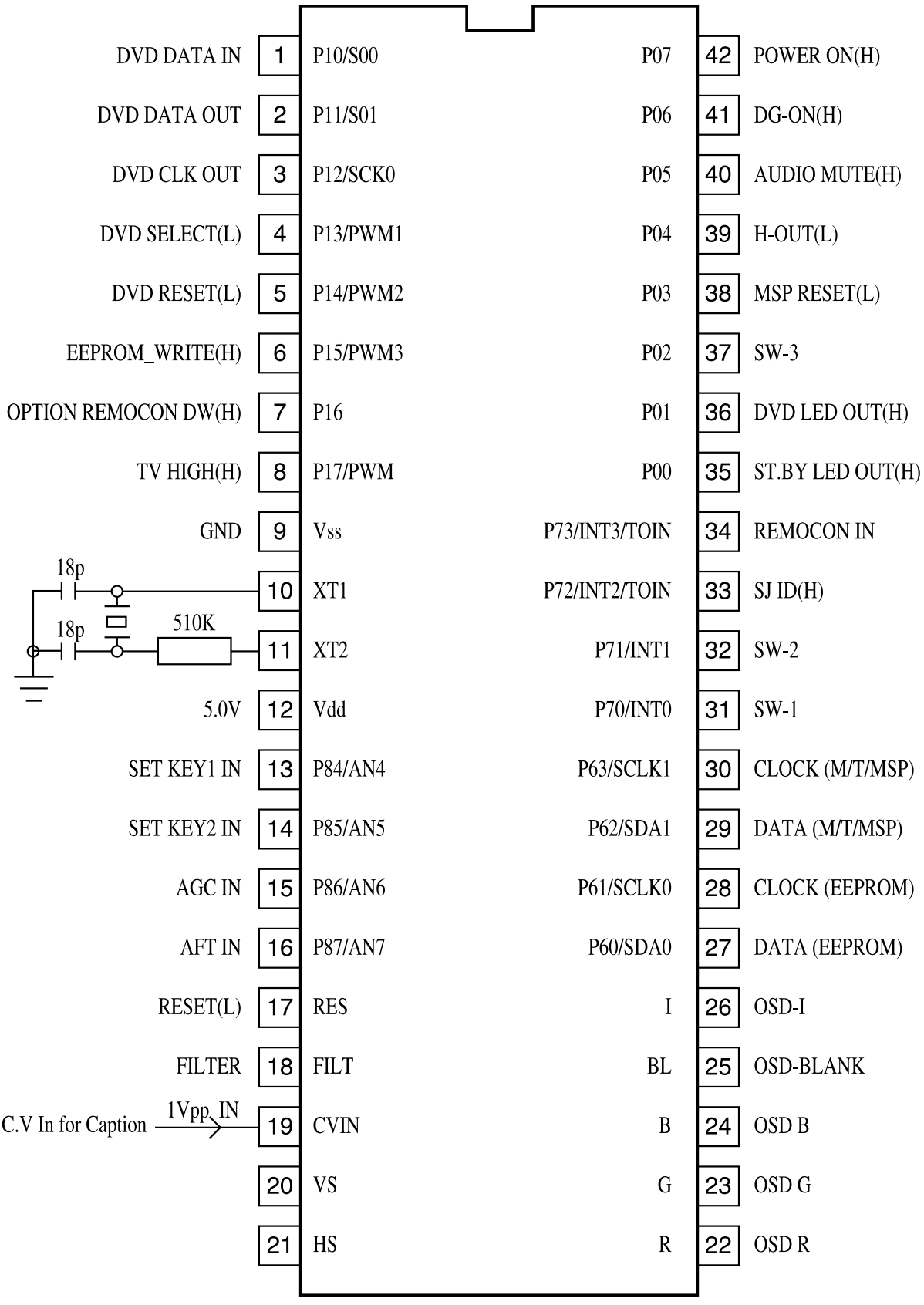
PRINTED CIRCUIT BOARD

7-2 PCB POWER



9. IC DESCRIPTION(U-COM : I701)

9-1. U-COM (I701) PIN ASSIGN



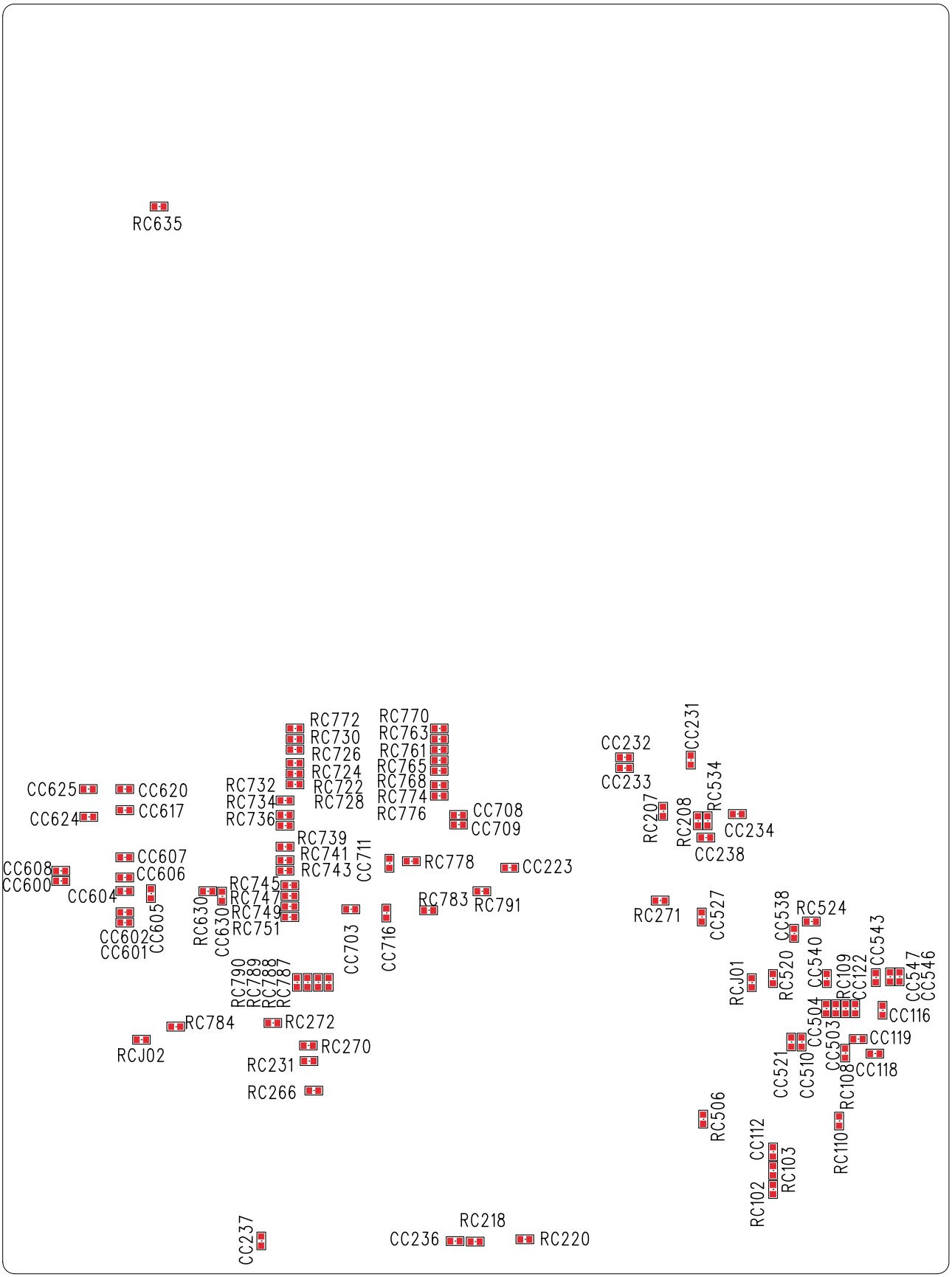
NOTE) XTAL은 32.768KHz 사용

9-2. PIN DISCRIPTION

PIN No	PIN NAME	TYPE	I/O	DISCRIPTION	REMARK
1	P10/S00	DATA-I	I	Data in from DVD	
2	P11/S01	DATA-O	O	Data out to DVD	
3	P12/SCK0	CLK-O	O	CLOCK out for DVD	
4	P13/PWM1	DVD-SEL(L)	O	Chip(DVD) Select	
5	P14/PWM2	DVD-RESET(H)	O	Reset DVD High : DVD Reset, Low : Normal MODE	
6	P15/PWM3	EEPROM_WR(H)		NC	
7	P16	DEAWOO(H)	I	Remocon Option High : DAEWOO Format, Low : buyer Format	
8	P17/PWM	TV(H)		NC	
9	DVss	VSS(-)		GND	
10	XT1	XT1	I	32.768 KHz X-TAL	
11	XT2	XT2	O	OSD OSCILLATE	
12	Vdd	VDD(+)		+5V(±10%)	
13	P84/AN4	KEY1-IN	I	MENU, VOL+, VOL-, CH+, CH-, POWER	8Bit A/D
14	P85/AN5	KEY2-IN	I	TV/AV, REW, PLAY, FF, STOP/EJECT	8Bit A/D
15	P86/AN6	AGC-IN	I	AGC CONTROL OUTPUT VOLATGE FROM LA76835 (DC 0 ~ Vdd)	8Bit A/D
16	P87/AN7	AFT-IN	I	AFT CONTROL OUTPUT VOLATGE FROM LA76835 DC 0 ~ Vdd. (Center : 2.5V)	8Bit A/D
17	/RES	RESET(L)	I	SYSTEM Reset(Hardware Reset) INPUT ACTIVE Low	
18	FILT	FILTER	I/O	Filter terminal for PLL	
19	CVIN	CVIN-IN	I	Video signal input terminal for CAPTION	1Vpp In
20	/VS	V-Sync(L)	I	OSD VERTICAL SIGNAL INPUT DC 0 ~ 5V Pulse Active Low	
21	/HS	H-Sync(L)	I	OSD HORIZONTAL SIGNAL INPUT DC 0 ~ 5V Pulse Active Low	
22	R	OSD R	O	OSD R OUT	
23	G	OSD G	O	OSD G OUT	
24	B	OSD B	O	OSD B OUT	
25	BL	OSD BL	I	OSD BLANK OUT	
26	I	OSD I		NC	
27	P60/SDA0	DATA(ROM)	I/O	EEPROM I2C Data IN/OUT	
28	P61/SCLK0	CLK(ROM)	O	EEPROM I2C Clock OUT	
29	P62/SDA1	DATA(T/M/MSP)	I/O	Tuner/LA76835/MSP I2C Data IN/OUT	
30	P63/SCLK1	CLOCK(T/M/MSP)	O	Tuner/LA76835/MSP I2C Clock OUT	
31	P70/INT0	SW-1	O	Input Select control Signal	

PIN No	PIN NAME	TYPE	I/O	DISCRIPTION	REMARK
32	P71/INT1	SW-2	O	Input Select control Signal	
33	P72/INT2 /T0IN	SJ ID(H)	I	Check Input Signal in S-VHS JACK Active HIGH	
34	P73/INT3 /T0IN	REMOCON IN	I	REMOCON CONTROL Signal Input	
35	P00	SB LED(H)	O	When Stand-by MODE When ON Timer Set When NO V-Sync.(fresh:500mSEC) Active HIGH	
36	P01	DVD LED(H)	O	When DVD Play ON When NO V-Sync.Ω√ ON(fresh:500mSEC) Active HIGH	
37	P02	SW-3	O	Input Select control Signal	
38	P03	MSP RESET(H)	O	Reset MSP3420GB8 Active HIGH	
39	P04	H-OUT(H)	O	I502 ON/OFF SW Active HIGH	
40	P05	A-MUTE(H)	O	I601 #3 ON/OFF SW Active HIGH	
41	P06	DG-ON(H)	O	Degaussing ON/OFF SW Active HIGH	
42	P07	POW-ON(H)	O	POWER ON/OFF SW Active HIGH	

10. CHIP COMPONENTS POSITION(PCB MAIN)



TROUBLE SHOOTING GUIDE
APPLICATION : DDQ-20L6(CN-090)

MENU

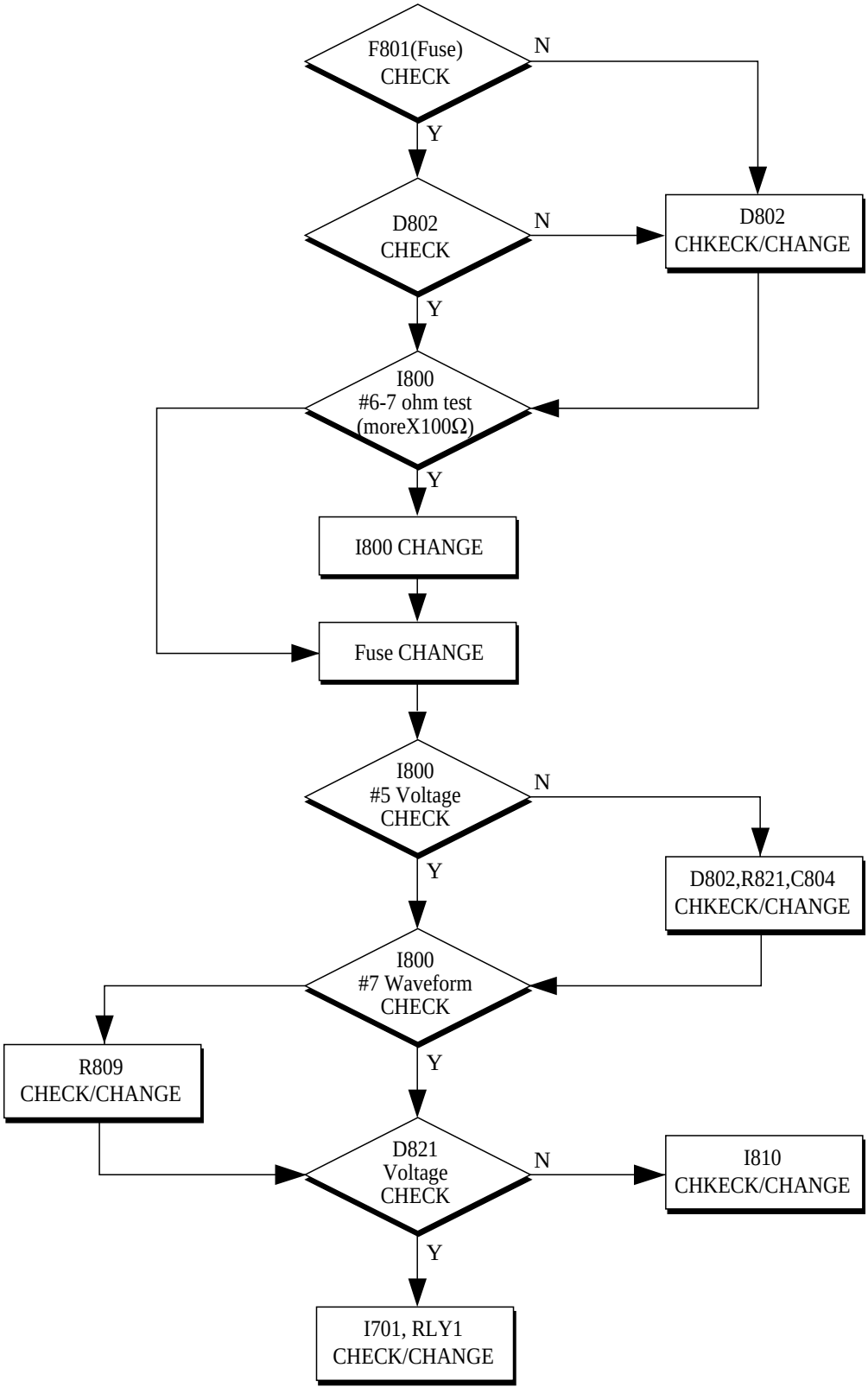
[A] TV PART

(1) NO POWER
(2) NO DEGAUSSING OPERATING
(3) NO SEARCHING CHANNEL
(4) NO INPUTMODE CHANGE
(5) NO OSD
(6) NO REMOCON OPERATING
(7) NO PICTURE
(8) VERTICAL DEFLECTION PART
(9) PICTURE PART
(10) COLOR SIGNAL PART
(11) SOUND PART

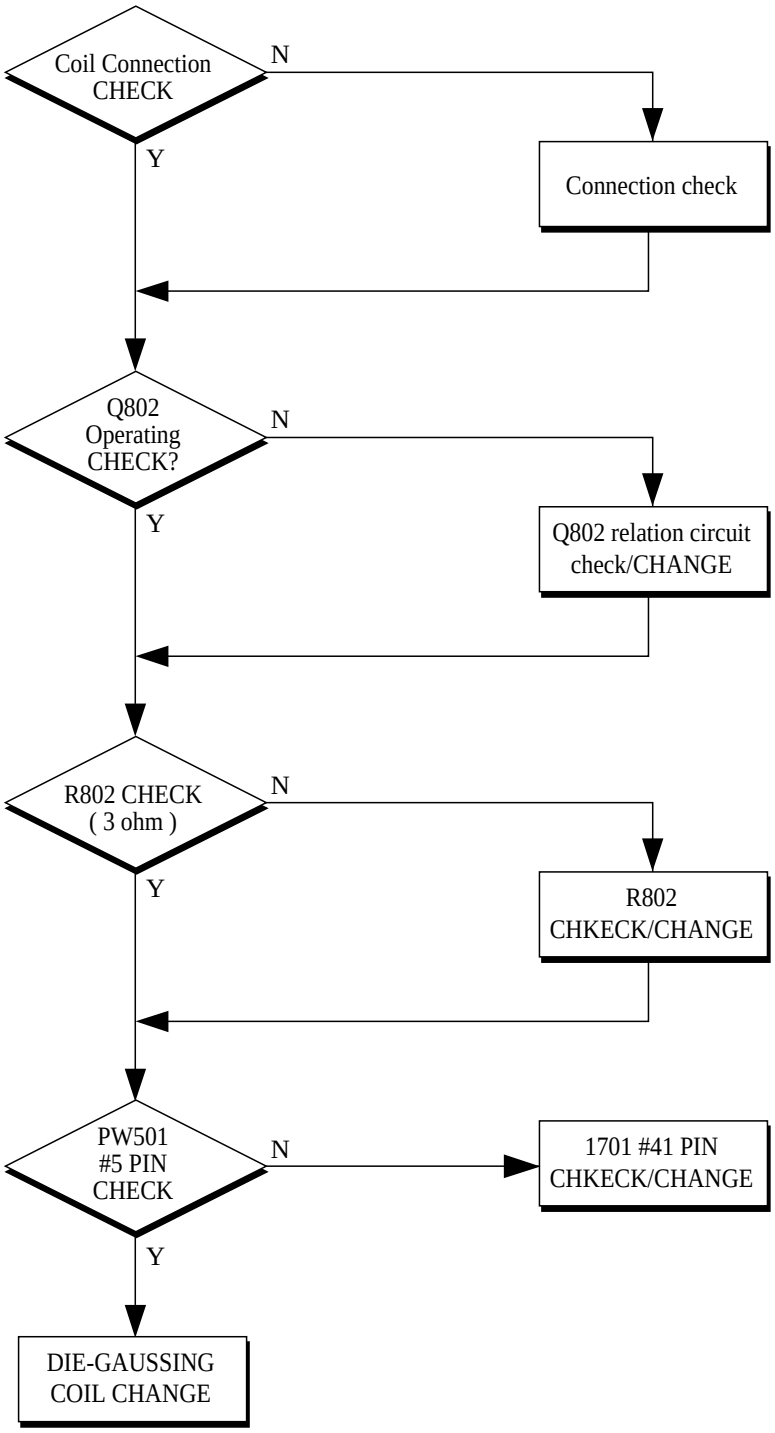
[B] DVD PART

(12) NO DVD OPERATING

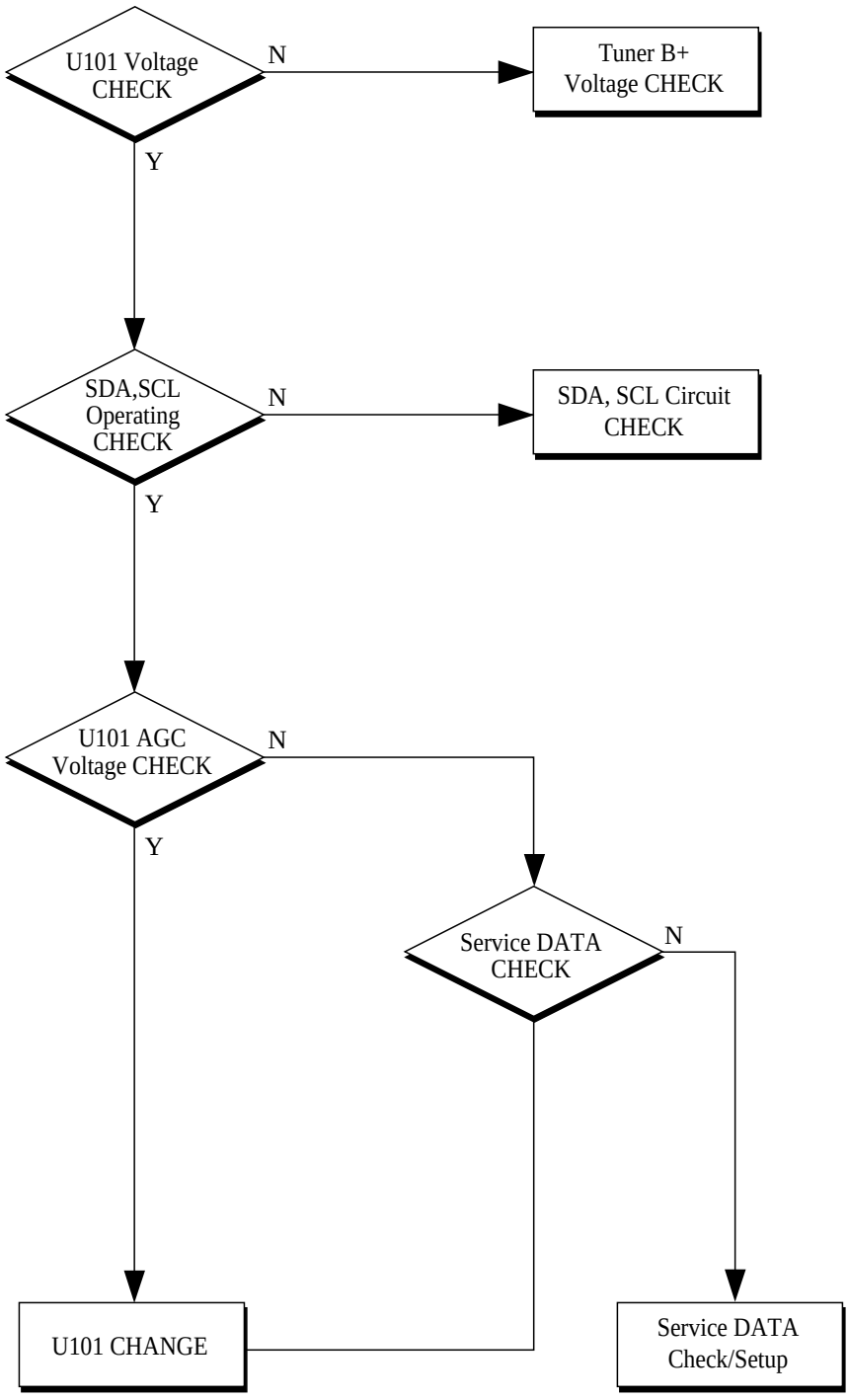
(1) NO POWER


F801(Fuse) CHECK
N
Y
D802 CHECK
N
D802 CHKECK/CHANGE
Y
I800 #6-7 ohm test (moreX100Ω)
Y
I800 CHANGE
Fuse CHANGE
I800 #5 Voltage CHECK
N
D802,R821,C804 CHKECK/CHANGE
Y
I800 #7 Waveform CHECK
R809 CHECK/CHANGE
Y
D821 Voltage CHECK
N
I810 CHKECK/CHANGE
Y
I701, RLY1 CHECK/CHANGE

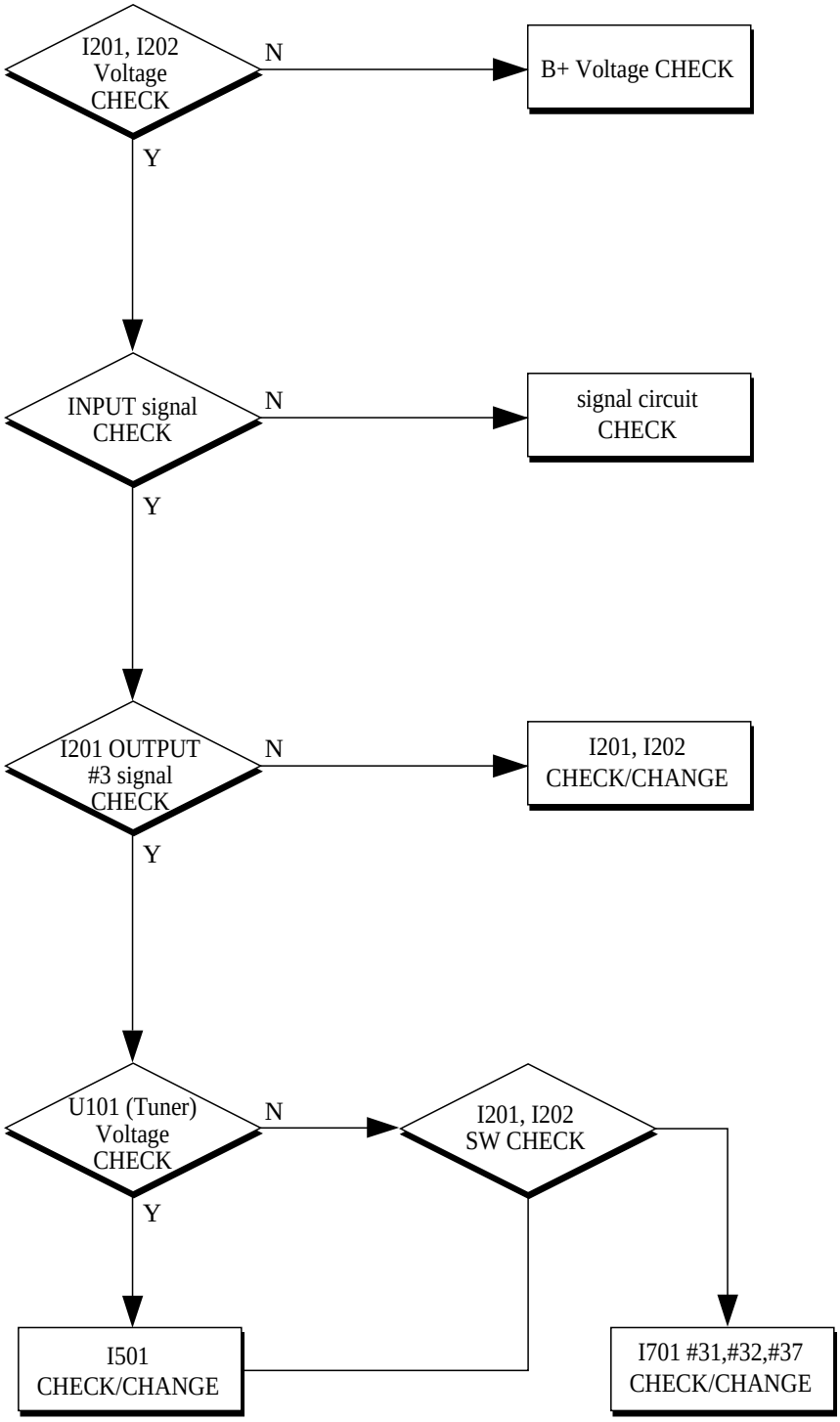
(2) NO DEGAUSSING OPERATING



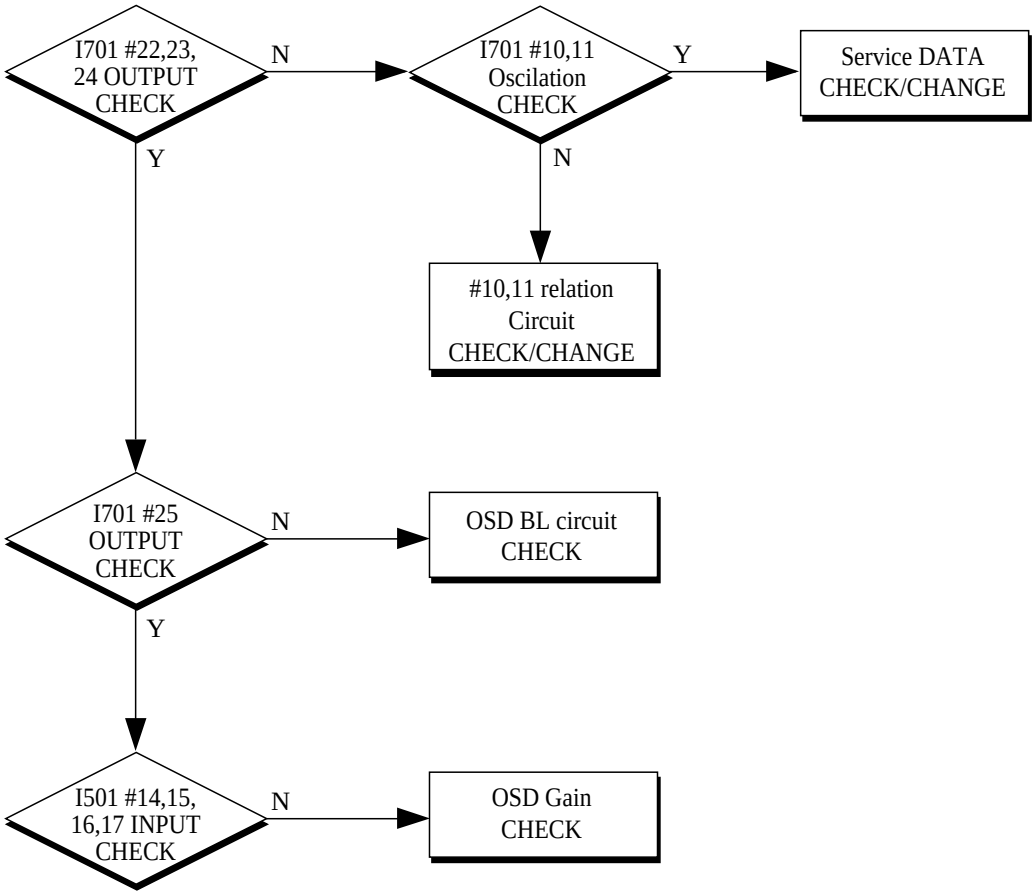
(3) NO SEARCHING CHANNEL



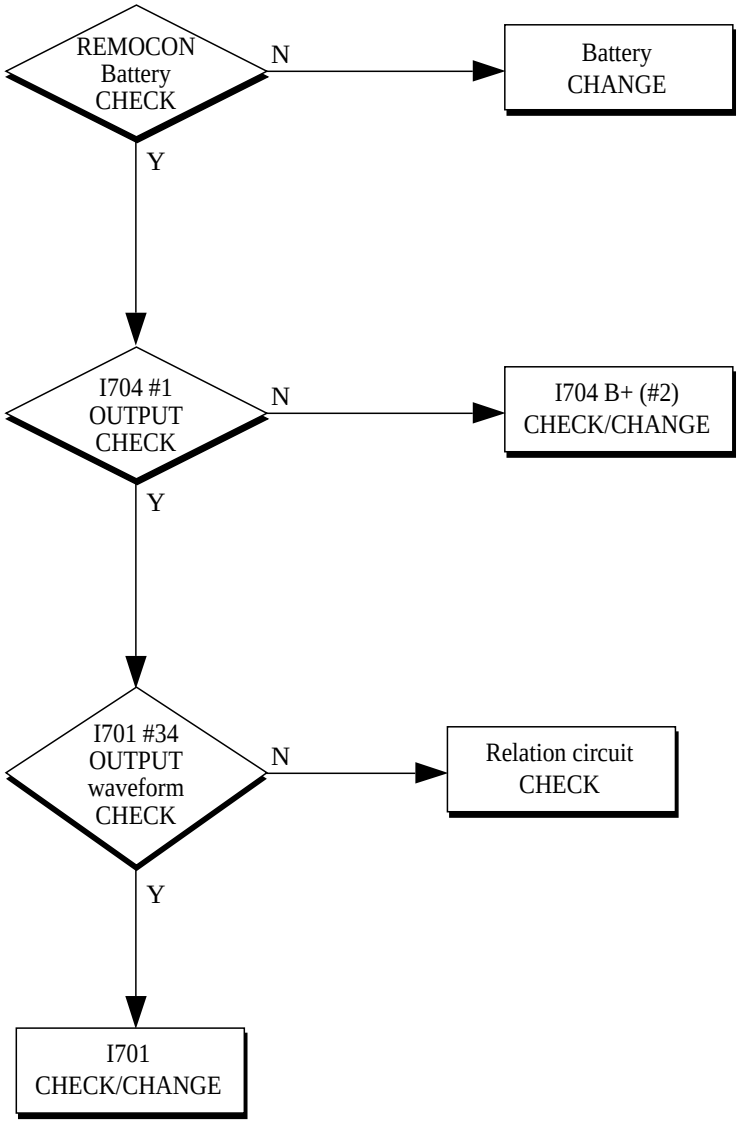
(4) NO INPUTMODE CHANGE



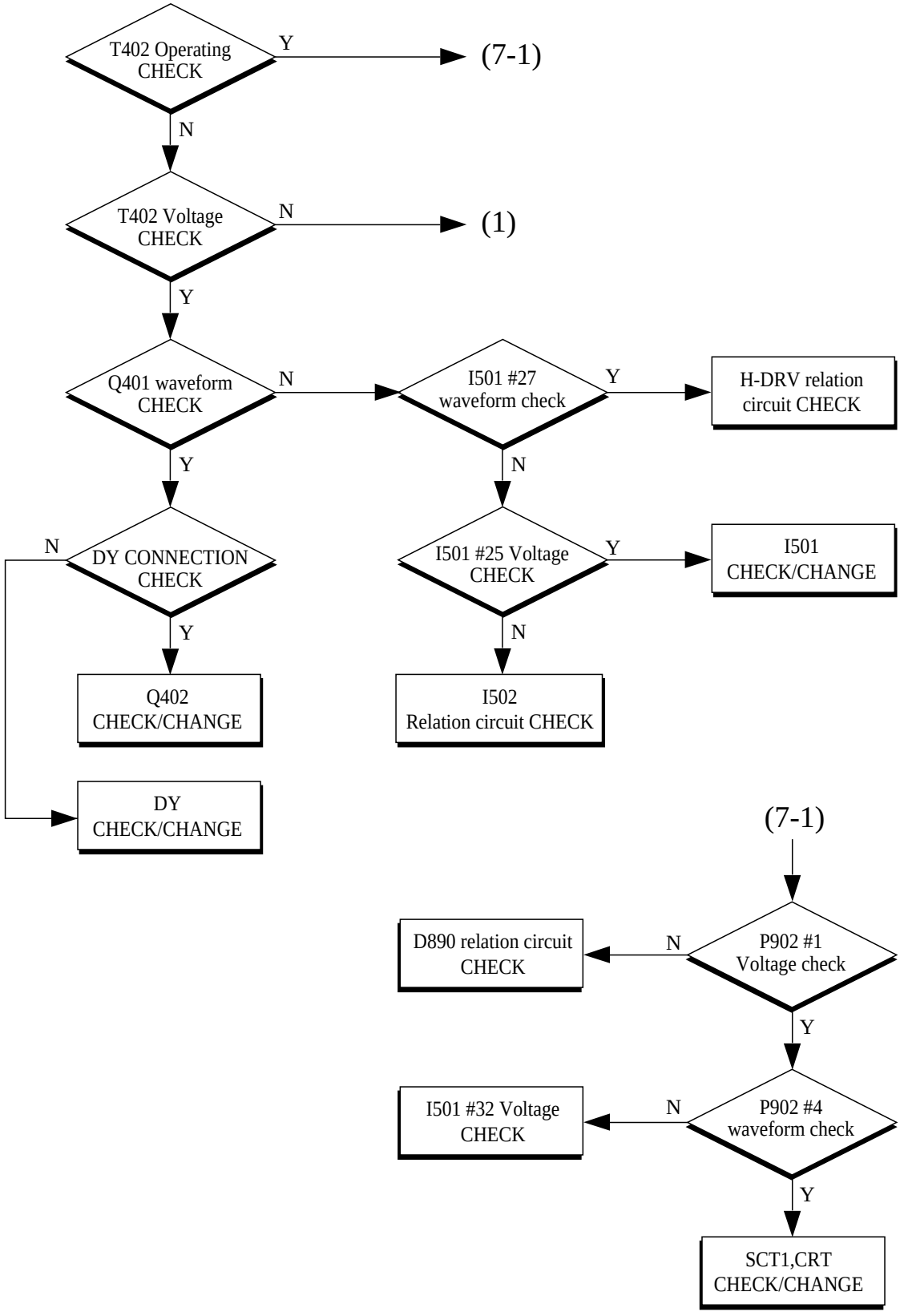
(5) NO OSD


I701 #22,23, 24 OUTPUT CHECK
N
I701 #10,11 Oscilation CHECK
Y
Service DATA CHECK/CHANGE
Y
N
#10,11 relation Circuit CHECK/CHANGE
I701 #25 OUTPUT CHECK
N
OSD BL circuit CHECK
Y
I501 #14,15, 16,17 INPUT CHECK
N
OSD Gain CHECK

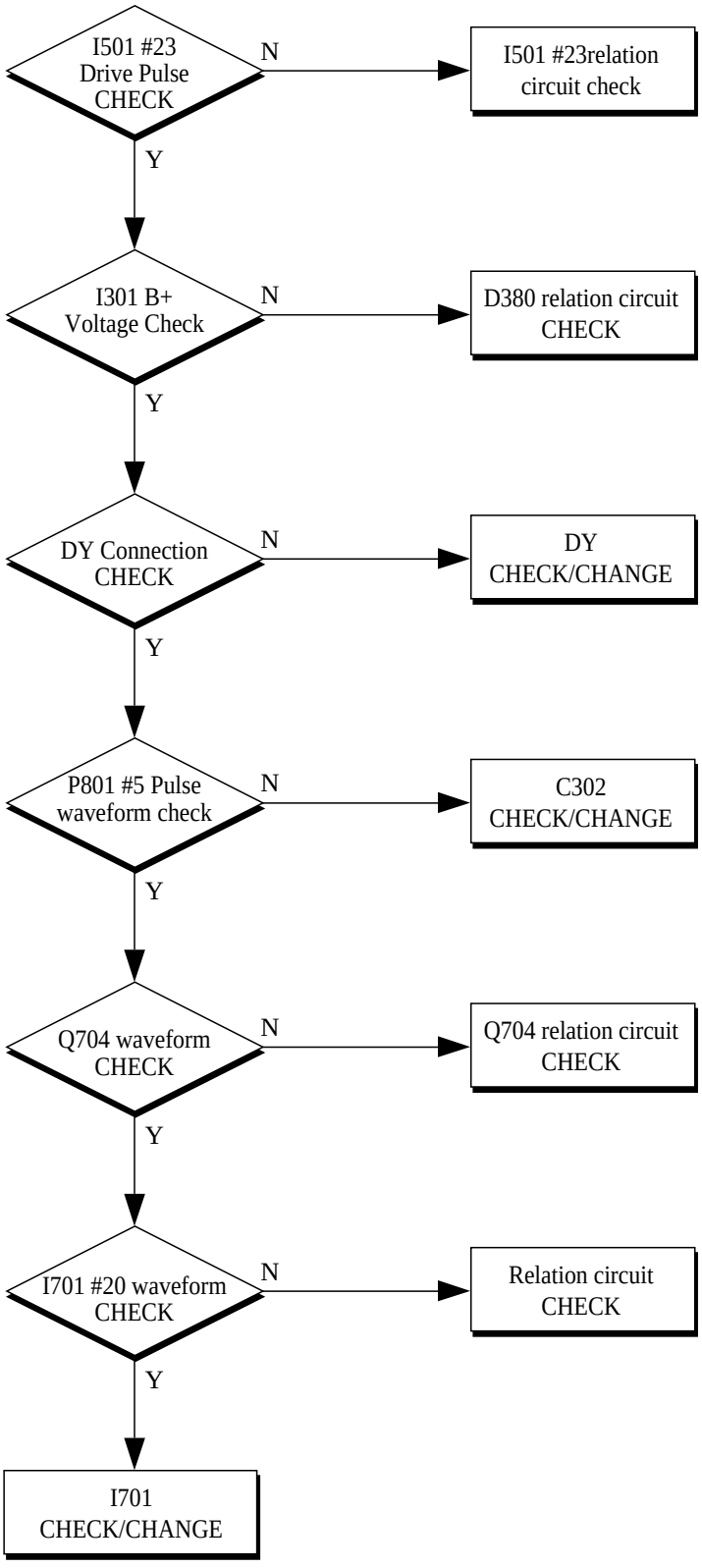
(6) NO REMOCON OPERATING



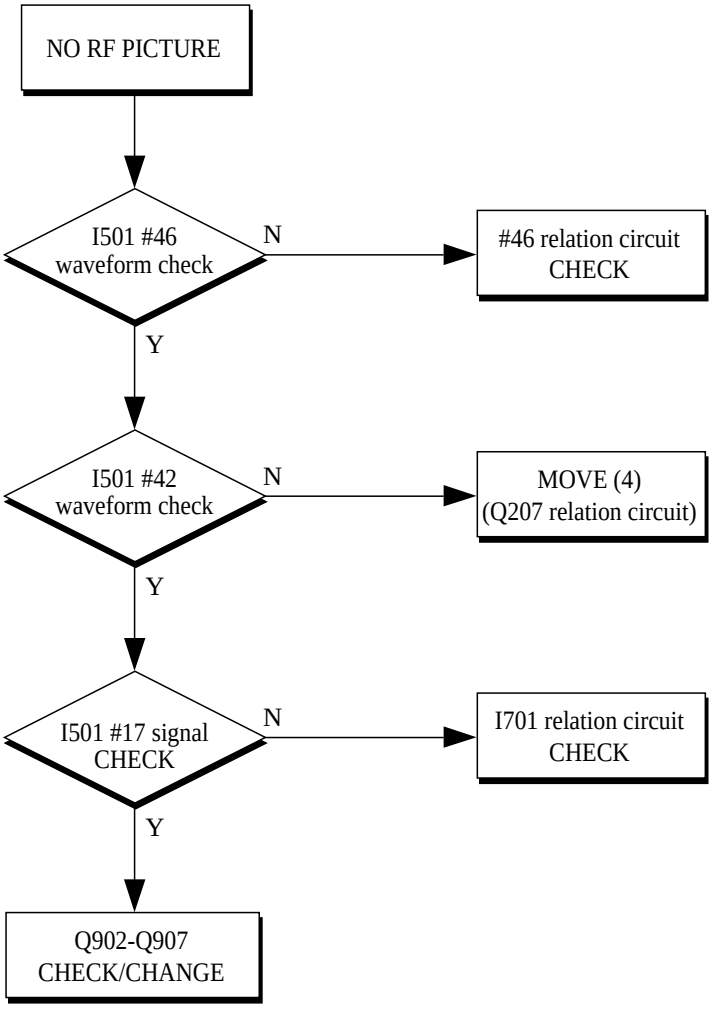
(7) NO PICTURE

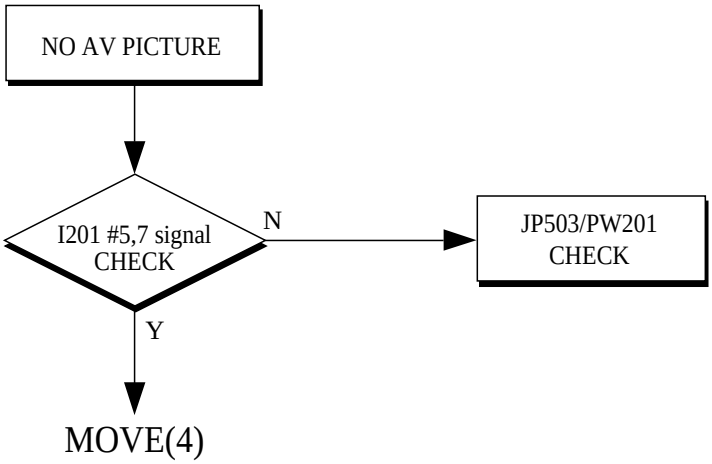

T402 Operating CHECK
Y
(7-1)
N
T402 Voltage CHECK
N
(1)
Y
Q401 waveform CHECK
N
I501 #27 waveform check
Y
H-DRV relation circuit CHECK
Y
N
N
DY CONNECTION CHECK
I501 #25 Voltage CHECK
Y
I501 CHECK/CHANGE
Y
N
Q402 CHECK/CHANGE
I502 Relation circuit CHECK
DY CHECK/CHANGE
(7-1)
D890 relation circuit CHECK
N
P902 #1 Voltage check
Y
I501 #32 Voltage CHECK
N
P902 #4 waveform check
Y
SCT1,CRT CHECK/CHANGE

(8) VERTICAL DEFLECTION PART

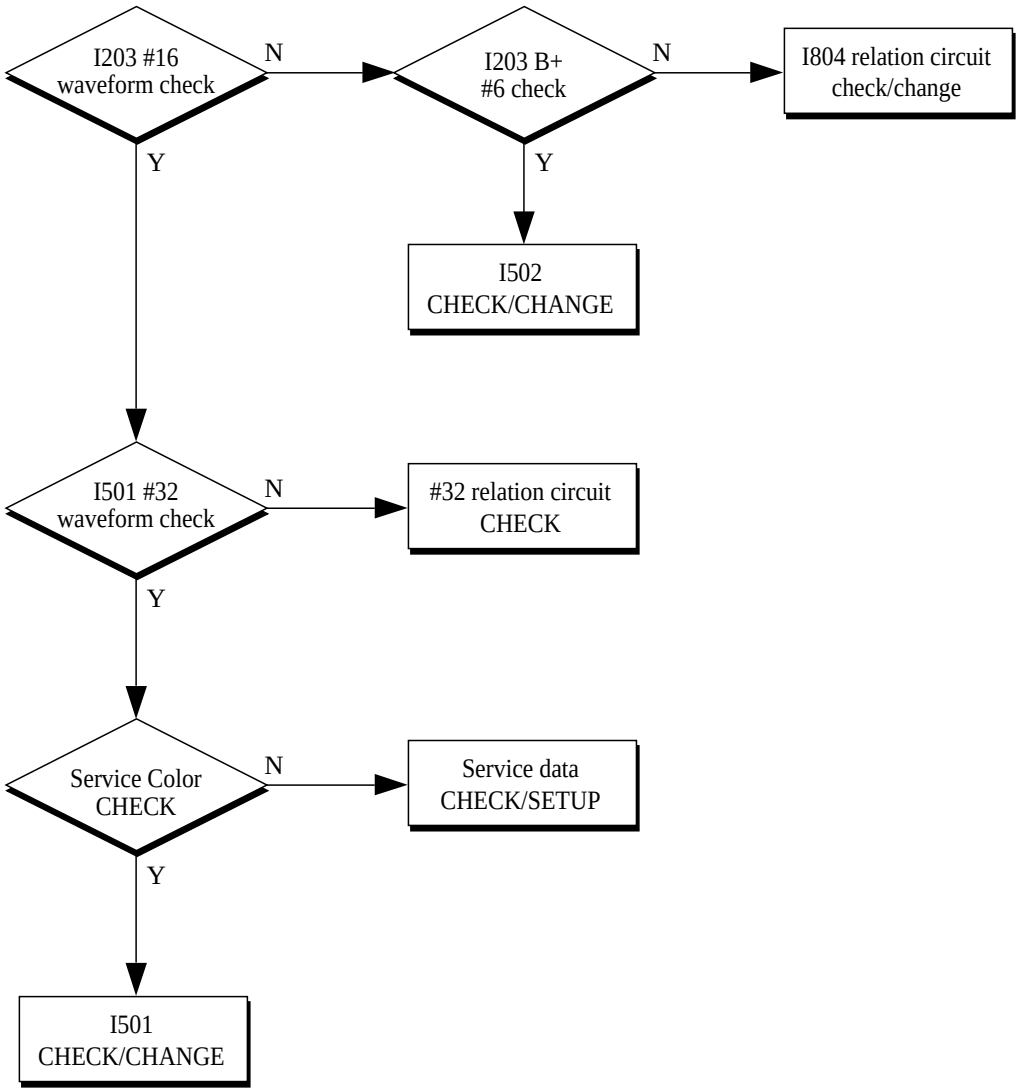


(9) PICTURE PART

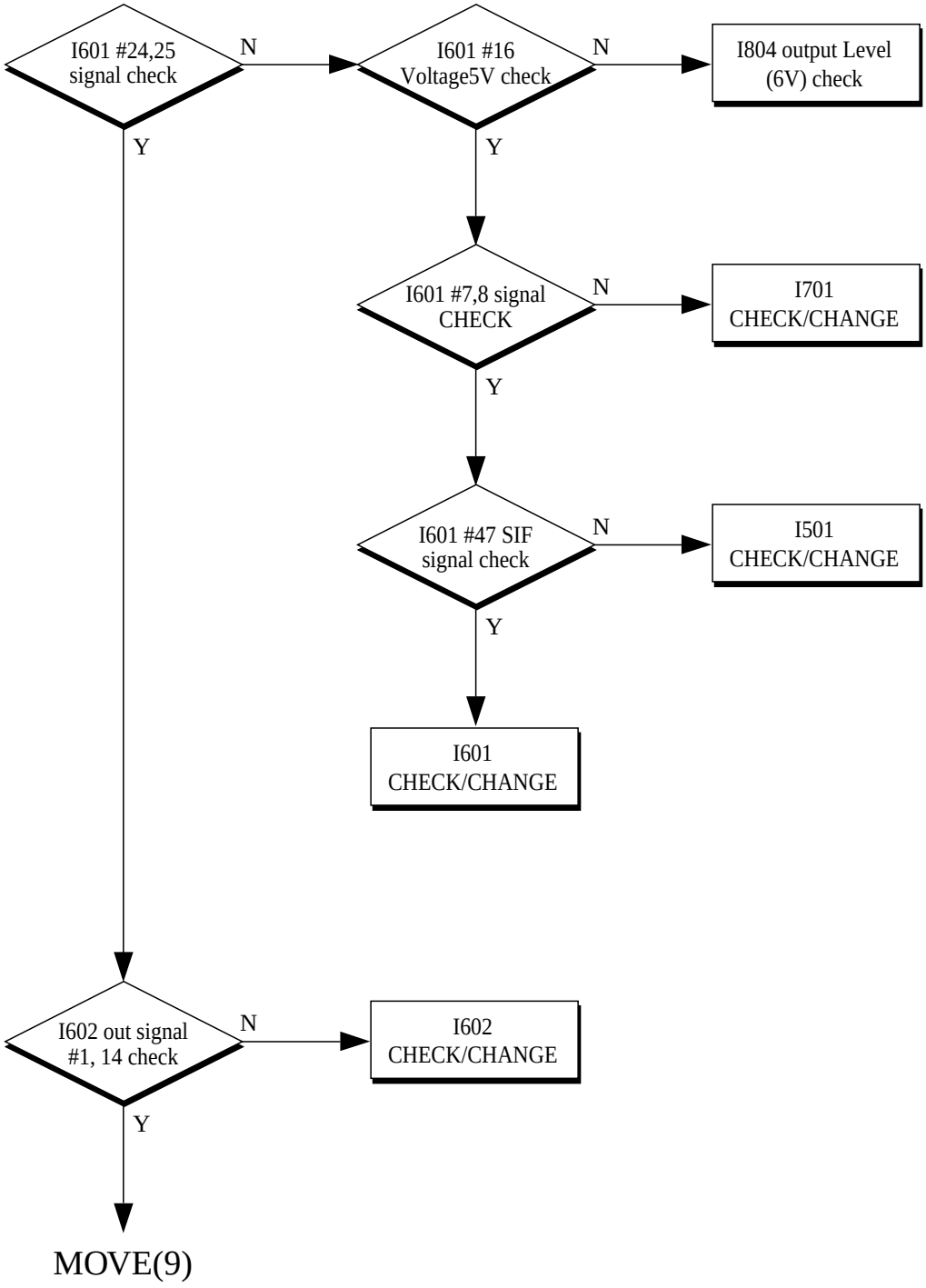




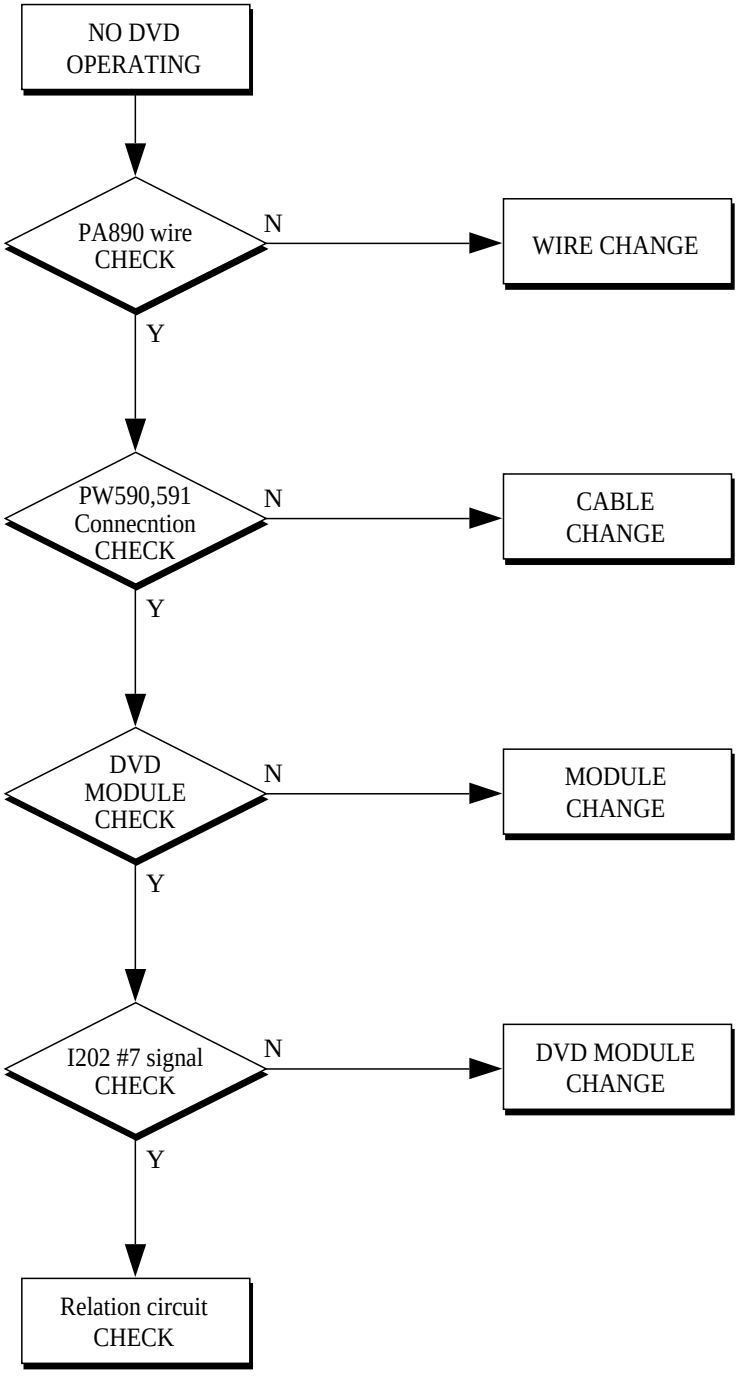
(10) COLOR SIGNAL PART



(11) SOUND PART



(12) NO DVD OPERATING



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